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**1980-1981 R/C CATALOG \$4.00**





# WELCOME TO TOWER !

**REPUTATION!** Tower Hobbies is the largest, fastest, friendliest, and most progressive Radio Control Mail Order Company in the World! Tower Hobbies has been courteously and honestly supplying modelers since 1971. We have over 75,000 active customers, and they know that Tower is a reliable company that you can depend on for excellent quality, low prices, and outstanding service. Tower Hobbies is NUMBER ONE because we know that you are the most important part of our business.

**DISCOUNT PRICES!** Tower Hobbies is the most competitive company in the hobby. Tower sells only brand new, brand name merchandise, yet your hobby supplies cost you less from Tower because our volume purchasing and sales allow us to offer you super discounts.

**FAST SERVICE!** We begin processing your order the minute we receive it! We double-check it, computer process it, and then ship it RIGHT AWAY! You receive exactly what you ordered in a carefully wrapped package that is courteously delivered by United Parcel Service (or Parcel Post if requested) within 1 to 5 days, depending upon where you live. When you deal with Tower Hobbies, you never have to worry about heavy traffic, stuffy crowds, or discourteous sales people!

**TOLL FREE PHONES!** Tower Hobbies was the first to offer Toll Free "800" phone service to its customers. The Toll Free lines enable you to call Tower free of charge to place orders, and to check availabilities and current prices.

**COMPUTER POWER!** Tower was the first mail order company in the hobby to keep track of inventory, remember backorders, and process all orders with a computer. Our customers enjoy not worrying about receiving the wrong merchandise, being billed incorrectly, or having their backorders forgotten or misplaced. Tower Hobbies processes your order quickly and efficiently every time!

**EXTENSIVE INVENTORY!** Tower Hobbies has the largest and most complete inventory of radio control modeling supplies and accessories in the World! Tower stocks over 2 million dollars worth of inventory, including over two thousand radios and over nine thousand engines! Tower Hobbies carries about four thousand different items from over 150 manufacturers including: Ace, Aeromarine, Aerotrend, A.F.I., Air-Forms, Airtronics, A-Justo-Jig, Ambroid, Andrews, American RC Helicopters, Associated, B&D, Badger, Banner, Bolink, Bridi, Cass, C.B. Associates, Coverite, Cox, Craft-Air, D&R, Daga, D.A. Enterprises, Devcon, Dodgson, Dremel, Du-Bro, Dumas, Econokote, Edson, Enya, Estes, Eveready, Flitecraft, Fliteglas, Flyline, Fox, Fusite, Futaba, Fuji, Gas Model Products, Gee Bee, Goldberg, G.M.C. Models, Grish, Hallco, HB, Hobbypoxy, Hot Stuff, House of Balsa, Hughey, Jemco, Jensen, Jet Hangar Hobbies, JR, K&B, Kraft, Lanier, Latrax, Leisure, L.R. Taylor, Marix, Mark's Models, M.E.N., Microflame, Michigan Hobby Hangar, Mile High Models, Midwest, Milman, Miller, Model Dynamics, Monokote, M.R.C., Steve Muck's, Bud Nosen, Octura, Ohio Superstar, OPS, Orline, O.S. Max, Pactra, Panavise, Pacer, Peerless, Perry, Pica, Precision Boat Mfg., Prather, Proctor, Power Pacer, Quadra, RAM, R&S, R/C Buyers Guide, RCM, Rocket City, Rev-Up, Robart, Rhom, Rossi, Royal, S&O, Sanwa, Sealector, Semco, Sig, Simmons, Skyglas, Slimline, Solarfilm, Shinsei, Sonic Systems, Southwestern, Southern RC, Spickler, Bob Smith, Su-Pr-Line, Sta-Brite, Stafford, Sterling, Supertigre, Sonic Tronics, Sullivan, Sureflite, Tarno Aero Engines, Tatone, Titebond, Top Flite, Tower Hobbies, Trexler, V.K., Vortac, Webra, Williams Bros., Wing Mfg., Wilhold, World Engines, X-Acto, and Zinger!

**WE'RE THE ONLY RC COMPANY YOU'LL EVER NEED!**



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The front office is a busy place as it receives, processes, codes, and checks over 650 orders each and every day.



The phone room receives over 500 calls per day. Orders & information requests are taken over our Toll Free lines.



In our file room over 75,000 active customers fill up 107 file cabinets. Can we make a new file up for you?



Our computer operators enter your order on the terminals quickly & accurately generating an errorless invoice just for you.



Tower stocks over two million dollars worth of RC modeling supplies at all times, so we'll have what you want!



## FEATURING...

### ★ 406 PAGES!!

This is the largest, finest, and the most complete R/C catalog ever published by anyone in the industry. All the finest lines at the best prices all clearly and completely displayed for your convenience.

### ★ TOWER ACTION POSTCARDS

For your convenience special postcards are now provided on page 403 for your use to contact manufacturers directly with questions or request for product information.

### ★ MANUFACTURER'S DIRECTORY

On page 401 is an alphabetical listing of every manufacturer along with address and phone number. Use it when sending Tower Action Post Cards or when you need to contact a manufacturer for advice, etc.

### ★ INDEXING

Both a manufacturer and a product index to help you find exactly what you're looking for as quickly as possible. Pages 5, 6, and 7.

### ★ ACCESSORY COMPLETION GUIDE

All new, revised, updated, and in a new easy-to-use chart format, It tells you exactly what you need to build and complete any kit in this catalog. Page 117.

### ★ PRICE LISTINGS

The easy-to-use Price Listing Section (page 376) where you find everything together in one place (also shows page number of where the item appears) . . . PLUS . . . all prices and stock numbers are now on the page where the merchandise appears in the catalog.

### ★ SECTION INTRODUCTIONS

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July, 1980

Welcome to Tower Hobbies . . . . .

To all of our over 75,000 currently active Tower customers I extend a warm welcome back! If you are a new Tower customer joining us for the first time then let me be the first to welcome you aboard! We've got an exciting year planned and I'd like to take a moment and share with you what's happened recently and what you can expect during the next year.

**BIGGER AND BETTER CATALOG!** In your hands is the largest and by far the finest R/C catalog ever published! Within these 406 pages you will find every R/C and R/C related item made that is of significance in the hobby. When you compare this catalog to what some of our competitors call "catalogs" you quickly see where you get the greatest value for your money. It's easy to understand why the Tower Hobbies Catalog is affectionately referred to as "The R/C Bible" by thousands of modelers all across the world.

**MORE NEW PRODUCTS!** Airplanes, helicopters, boats, cars, tanks, motorcycles and now even an R/C blimp are included in this catalog along with all the engines, radios, accessories, and equipment necessary to make these models complete. There are hundreds of new items in this catalog—so plan on spending several relaxed hours paging through this market place of modeling. And throughout the year all active customers on our mailing list will receive our bi-monthly Super Special Sheet that's always packed with great values and the absolute latest in new products.

**SUPER DISCOUNT PRICES!** Throughout this catalog and our bi-monthly Super Special Sheets you'll find fantastic deals and unbelievable discounts—discounts of up to 50% off retail prices! And that adds up to big savings, especially on expensive items like radios and engines. And thanks to Tower's tremendous buying power we have been able to further reduce some prices even in the face of double digit inflation. For example we randomly selected some typical customer orders of one year ago and priced them out today at current Tower selling prices and found that the average invoice increase was only 3.72%! What a refreshing change from the runaway inflation we experience on everything else!

**MORE TOLL FREE LINES !** To make it even more convenient for you to call Tower we've just added 50% more phone lines and we've even expanded the geographical coverage of our WATS lines! For Toll Free WATS calls to Tower: Illinois customers call 800-252-1113; all other Continental United States customers call 800-637-6050; and now for the first time Alaska and Hawaii customers call 800-637-8700. We welcome our more than 1,000 customers from the Land of the Midnight Sun and the Aloha State!

**BRAND NEW BUILDING!** Tower Hobbies just moved into a brand new 41,400 square foot building! This new building was designed and built exactly to our specifications and requirements—and everything about it is designed for super efficient order processing and shipping. And the extra warehouse space will enable us to increase our inventory level from \$2 Million to well over \$3 Million. It's the largest and most complete inventory of R/C merchandise under one roof anywhere in the world—which all adds together to give you a better selection and a higher fill rate, even on the hard to get items that everyone else is out of stock on!

We've tried to "put it all together" for you. I think you'll agree that no other company in this great hobby of ours can even come close to matching Tower Hobbies. Unlike many of our "here today—gone tomorrow" competitors, Tower Hobbies was built upon and continues to operate on the simple but solid foundation of providing excellent service at the lowest possible prices. At Tower you do business with the best at no extra charge!

Thank you for being our customer. We look forward to the pleasure of serving you over and over again in the future with all of your modeling needs.

Sincerely yours,

TOWER HOBBIES INC.

Bruce R. Holecek  
President



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# TOWER HOBBIES GENERAL INFORMATION

## A WORD TO OUR CUSTOMERS

All of us at TOWER HOBBIES extend our sincerest thanks to you, our customer and friend, for making Tower Hobbies your hobby shop.

Your satisfaction is the reason we maintain an extensive inventory. Your satisfaction is the reason we offer the fastest service at our unbelievably low prices. Your satisfaction is the reason we give so much personal attention to each and every order. YOU are the reason why Tower Hobbies exists.

Now, as in previous years, our overriding policy is total customer satisfaction. You have come to depend upon this in the past, and you can rely upon it in the future.

## ABOUT TOWER HOBBIES

Tower Hobbies is the largest, finest, fastest, friendliest, and the most progressive R/C Model Airplane Mail Order Company in the United States. Tower Hobbies is NOT a little hobby shop that sells mail order as a sideline, but rather we are a highly specialized and efficient volume merchandiser. Our large quantity purchasing enables us to buy at the lowest price and the large number of orders we process each day enables us to use the most efficient methods—all of which add up to fantastic savings and excellent service to our more than 75,000 customers.

Tower Hobbies is NUMBER ONE because we know that you are the most important part of our business. That's something we never have, nor ever will forget. Can you think of any reason why you should settle for less?

## TOWER HOBBIES FIRSTS

Tower Hobbies has led the way in the past few years in innovative ideas, customer convenience services, and inflation fighting pricing policies.

We were the first to install TOLL FREE phones for your convenience. We were the first to keep track of inventory, remember backorders, and process invoices with an IBM COMPUTER which enables us to keep our errors to a minimum. We were the first to publish a FULLY ILLUSTRATED CATALOG at a reasonable price (free to past customers). We were the first to REALLY DISCOUNT all items in R/C, and to back that discounting up with an extremely well-stocked inventory.

And we're just getting started! While our competitors are busy catching up we will continually be adding new firsts to our list. We welcome you to our rapidly growing family of satisfied customers—join the leader who makes the firsts happen!

## TOWER HOBBIES GUARANTEE

If for any reason you do not like or want something you received from Tower Hobbies, you may return the merchandise within 10 days for a full refund or exchange.

The returned merchandise must be unused and in original condition and must be accompanied by the original Tower Hobbies invoice with the merchandise return form on the back of the invoice filled out completely. Returns will be accepted ONLY if returned by UPS or insured Parcel Post. All returns must be postage prepaid. Refund or exchange is limited to the amount paid for the merchandise returned only and will not include postage, handling, and insurance fees paid for original shipping or returning. Please read "MORE ABOUT RETURNS" for further instructions and information before returning any merchandise.

If the item you want to return has been used in any way, is not in its original packaging, or if it is beyond the 10 day return period, then you must call or write for return authorization before sending it back. Without this authorization we will not accept your return.

## SUPER SPECIALS OF THE MONTH

Every month in our magazine ads we run several items on super special. Discounts of up to 50% are not unusual. It's just one more way Tower Hobbies helps to stretch your hobby dollars. Don't miss these sales, as they represent absolutely the finest values in R/C.

## SUPER SPECIAL HOT SHEETS

Periodically we send out super special hot sheets with orders or through the mail. These are super specials at fantastic savings. Intended as a bonus for our current customers only, these specials never appear in magazine ads or other forms of advertising.

Occasionally we will be overstocked on an item, or sometimes we just pick up a few of an item at a super price. When this happens, we pass the savings on to our good customers—customers like you!

When you get these hot sheets—act fast! Quantities available at the special price are usually limited to on-hand inventory and no backorders are usually taken.

## ABOUT THIS CATALOG

We sincerely believe that this catalog that you have in your hands is the finest and most complete illustrated R/C Model Airplane Catalog ever produced. Within these 406 pages you will find over 4,100 items from more than 156 outstanding manufacturers. It took us over four months to compile this catalog and we feel that just about anything you could ever need in R/C is contained in it.

Plan on spending many hours in your favorite chair reading through the catalog. Packed into each page is all of the excitement and information that's found at a full scale trade show, everything except the noise and stuffiness of the crowds.

Keep your catalog handy for all of your modeling needs; it's your passport to the finest and most extensive collection of R/C Model Airplane supplies in the world!

## TOWER STOCK NUMBERS

Every item that we carry has a Tower Stock Number or Special Stock Number for sale items. Please use either the regular stock numbers or special stock numbers from our sales sheets when ordering to prevent mistakes. If an item has a special sale stock number you must use this number to receive the special price. THIS IS VERY IMPORTANT!!! Every item that we carry is listed in the Price Listing Section (page 377 to 394) along with its retail and Tower price as well as the page on which the item can be found. More complete instructions are found on pages 376 and 396.

## PRICE AND/OR DESCRIPTION CHANGES

All prices, pictures, and descriptions in this catalog are subject to change without notice.

## NEW PRODUCTS JUST RELEASED

As you all know, new products are coming out all the time. When these new products do become available, you can be sure that Tower will carry them. Just give us a TOLL FREE call for information, prices and stock numbers.

## HOW TO ORDER BY MAIL

Whenever possible, please use a Tower Hobbies order form. Two order forms are provided on Pages 397 and 399 of this catalog. You will receive additional order forms with your order.

To insure that your order will be filled exactly as you desire, please make sure you follow the order instructions of Page 396.

## HOW TO ORDER BY PHONE

Ordering by phone is the fastest, simplest, and most sure-fire way to get your order on the way to you. Simply call us TOLL FREE and one of our extremely helpful and knowledgeable sales people will be happy to take your order. Please have your Tower Stock Numbers, your Tower customer number and your complete order handy whenever you call us. Please note that we cannot add to orders if you call back later due to the speed of our order processing. When you order by phone you will get instant feedback as to what's available and what is not.

Our phones are open from 9:00 AM to 9:00 PM Monday through Thursday, 9:00 AM to 5:00 PM on Friday, and 10:00 AM to 5:00 PM on Saturdays, Central time. We are closed Friday evenings and all day Sunday.

## HOW YOUR ORDER WILL BE DELIVERED

Your order will be shipped by UPS (United Parcel Service) whenever possible. Shipments to APO's, FPO's, Foreign Countries, states not served by UPS, and P.O. Boxes will be shipped by Parcel Post. If you have a street address in addition to a P.O. Box address, please list it so that we can ship by UPS. There is a flat \$3.00 postage, handling and insurance charge for any order shipped by UPS or domestic Parcel Post. If your order is shipped COD, there is an additional \$3.00 charge.

We can only ship orders by UPS or Parcel Post, and do not handle any type of air freight shipments.

For all foreign orders, please include an additional \$15.00 or 25% of the merchandise value, whichever is greater. At your request, all excess postage received will be refunded with your order on these special shipments.

## YOUR TOWER HOBBIES INVOICE

SAVE your Tower Hobbies invoice! If you should ever want to return anything, you must send the original invoice with the merchandise. Our merchandise return form is printed on the back of the invoice and filling it out completely will speed processing of any returns. Also, your invoice is your bill of sale in the event you should ever need to substantiate purchase date for warranty purposes. Also, please note your customer number in the upper left corner—please use it when ordering. It makes order processing much faster.



# TOWER HOBBIES OPERATING POLICY

## MORE ABOUT RETURNS

### REGULAR RETURNS

If your merchandise is new and unused, and in its original condition and packaging, we will be happy to take it back if you are not happy with it. Please send back your original Tower invoice with the returned merchandise. Make sure that you have completed the form on the back of the invoice and that it is being returned within 10 days of purchase. If you have had the merchandise longer you must call us for return authorization or else your return will not be accepted. Please wrap all return merchandise very carefully so that it does not become damaged in shipment. Please also see that it is shipped back to us with the same type of packaging as it was received. For example, if the box was wrapped in brown paper, then wrap your return in paper also. Please avoid any writing on a kit box as this may prevent the merchandise from being accepted for return. All return merchandise must be accompanied by the completed merchandise return form on the back of the invoice including your instructions as to what you would like us to do. If you would like an exchange and are enclosing another order, either send the payment to cover the substitute order or request that it be sent COD for the balance. DO NOT send a return back COD as it will not be accepted. We reimburse our cost of postage if there has been an error on our part. Send all return merchandise to: TOWER HOBBIES INC.

P.O. Box 778 Champaign, IL 61820

Please note that this address is acceptable for UPS or Parcel Post

### DEFECTIVE RETURNS

If you have received defective merchandise and you have already tried to use it in any way, DO NOT SEND THE MERCHANDISE BACK TO US. The manufacturer is responsible for any defects of the material, and they will handle these problems for you. We cannot take back any merchandise that has been used, and if you send it to us, we will have to send it on to the manufacturer, or return it to you and this just results in a delay to you. If you can determine merchandise is defective WITHOUT using it, then follow the instructions stated above under "REGULAR RETURNS."

### DAMAGES

If a shipment comes to you and you realize that it is damaged before you accept delivery, please refuse it. If you have already accepted delivery on a shipment, and then find shipping damage, please call Tower Hobbies immediately and save all the original packaging from the shipment. Please do not throw anything away! If the order was shipped United Parcel Service, we will issue "Call Tag" on the merchandise. This means that UPS will come to your address to pick up the merchandise and you will avoid the cost of paying the return postage. If you try to send back a damaged item yourself, you will jeopardize our method of placing claims with United Parcel Service, and you may not receive credit for the return. If the item was shipped Parcel Post, please also call us immediately and we will contact the Post Office and they will contact you. Please note that there is a difference in how to handle returns of damaged or defective merchandise. Please see the back of your Tower invoice for a complete definition of these two categories.

### CUSTOMER NUMBER

Your customer number is very important, and can help us offer you the fastest most efficient service. You will receive a customer number when you place your first order with Tower. It appears in the upper left hand corner of your Tower invoice. Please have your customer number handy when you place a phone COD order, or whenever you call Tower Hobbies for any reason, and put it on your order form when you place a mail order. This helps us, especially if you have any question about a shipment. Please order under the same name on all your orders to avoid confusion.

### CHECK CLEARING

If you send us a large personal check to cover an order, especially a first order, there may be a delay as the check will be held for clearance. We allow 20 banking days for a check to clear, and if your check is held, it will be shipped after the allotted time has elapsed. If you place a large order, and want to insure that the order will be shipped as quickly as possible, please send a money order or certified check. We do not check references as we are not equipped to do this, and the only way you can build up your credit rating with Tower Hobbies is simply by ordering from us. The personal check limit is gradually raised, and the more orders that are placed, the larger the personal check that will be accepted. Most orders are shipped without any delay at all. Please don't call and ask your personal check limit as our phone people do not have access to this information.

### OPEN ACCOUNTS

We do not handle any open account shipments. All orders must be prepaid or sent COD. If you are ordering through a company, and choose to send a company check to cover the shipment, the company check will be treated as a regular personal check and may be held for clearance if it is a large check.

## NO CREDIT CARDS

At this time, we do not handle any credit cards. All orders are shipped either prepaid or COD. Due to the costs involved, we would have to raise our prices if we accepted credit cards, and since we want to keep our prices as low as possible, we are not now handling credit cards. If you send in an order requesting a charge to your credit card, it will simply be returned because we have no way of handling it.

## COLLECT PHONE CALLS

WE DO NOT ACCEPT COLLECT PHONE CALLS. Our TOLL FREE LINES ARE: 800-252-1113 for Illinois, 800-637-8700 for Alaska & Hawaii and 800-637-6050 for Continental U.S.A. Our regular phone line is 217-398-3636. If it is difficult to reach us, please just keep trying. Our lines are quite busy, but we have a large phone staff and do our best to handle all calls. We will not, under any circumstances accept collect calls.

## SPECIAL POSTAGE

We normally ship orders either by United Parcel Service or through the Post Office for our regular handling charge of \$3.00 per order. However, if you want an order shipped either by Blue Label service or Airmail, we can handle this for you also, but there are additional charges. We can presently ship Blue Label (UPS Air service) to the following states: AZ, CA, CT, DE, DC, FL, ID, ME, MD, MA, MT, NV, NH, NJ, NM, OR, RI, UT, VT, WA, WY, and to parts of Alaska, CO, HI, NY, ND, PA, and TX. For Alaska and Hawaii, if we ship UPS, it must go Blue Label as there is not brown label ground service to these states. If you would like to have an order shipped Blue Label, the charges are \$4.00 plus \$.75 per pound. (The \$4.00 replaces our regular charge of \$3.00—then add the charge per pound.) If you place a phone order to be shipped by Blue Label, our phone staff will not be able to give you the exact charges as the order will first have to be weighed. We also figure Airmail charges by weight.

For APO and FPO addresses, we can ship: SAM at no additional cost, and PAL for \$4.00 (our normal charge of \$3.00 plus \$1.00). Not all orders can be shipped by SAM or PAL as there are size restrictions. To be shipped either SAM or PAL, the package must be a maximum of 60" in length plus girth combined, and weigh less than 30 pounds.

EXTRA LARGE KITS—We carry some kits that cannot be shipped by parcel post at all due to the size restrictions. They can be shipped by UPS, and therefore must be shipped within the country. In general the kits too large to be shipped by parcel post are those with a fiberglass fuselage such as the Bridi Aero Commander Shrike.

## FOREIGN ORDERS

Please include sufficient postage to cover the cost of the merchandise being shipped to you. A minimum of \$15.00 should be included and we will refund any excess. We charge foreign postage strictly by weight, and you will be charged our shipping costs plus handling. Please specify whether you want an order shipped by Airmail or surface mail and we will figure the charges accordingly. We have an international kit list available which lists all the kits which can be shipped internationally, and their weights. If a kit is not listed, it is too large and cannot be shipped out of the country. Foreign customers please send a self-addressed stamped large size envelope if you wish to get a copy of this list. Please Note: We accept payment in U.S. currency only.

## PROBLEMS

If you have a problem with an order, we will be happy to help you. Call the Main Office (217-398-3636) for specific information as to when your order was shipped, what was shipped, etc. Our Phone Sales people take orders only and do not have access to your file and therefore cannot answer specific questions about your order, when we received something from you, etc.

## BACKORDERS

We try to backorder every out of stock item that we can if you request that an item be backordered. Certain special items are not backorderable, and small accessory items cannot be backordered. Due to the costs involved in processing backorders, we are unable to backorder anything under \$10.00 unless you are ordering a large quantity of the same item.

## REFUSED COD'S

We are happy to ship to our customers COD, but please be sure that someone is available to accept the delivery. If delivery is refused, we will not be able to ship COD in the future.



# **TOWER**

TOWER HOBBIES is the largest and most progressive R/C mail order company in the United States. Many things including our extensive inventory, our sudden service, our unbelievably low prices, our Toll Free phone lines, and our personal attention to each and every order are the reasons why.

These exclusive qualities of TOWER HOBBIES are the result of the efforts of the people pictured on these six pages. These sincerely interested people ARE TOWER HOBBIES.



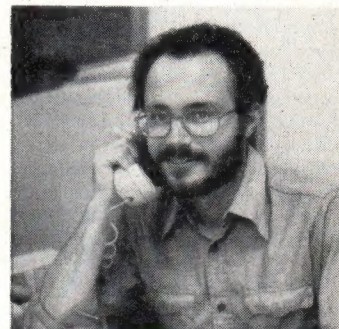
Tina Anderson - Order Extending



Linda Baylies - Customer Service



Linda Bebar - Shipping



Rob Bird - Phone Manager



Robert Black - Phone Sales



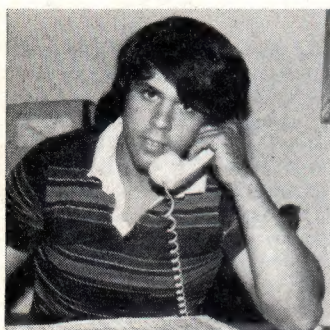
Janice Bonebrake - Terminal Operator



Kerrie Bray - Office



Veronica Brennan - Order Extending



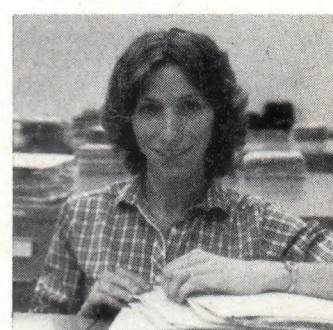
Roger Brown - Phone Sales



Faye Cagle - Phones/Office



Kathy Carley - Phone Sales



Cynthia Carrico - Office



Janice Chilton - Shipping



Dody Cosmedy - Special Projects



Jill David - Asst. Phone Manager



Kelly Decker - Shipping



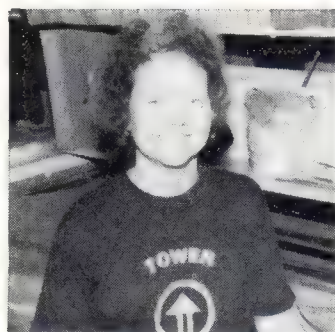
# HOBBIES

All of us at TOWER HOBBIES are determined to do something for you. And that's to provide the finest, friendliest and fastest service in the R/C business. We want to answer your questions, provide information, and of course take your orders for your modeling supplies. And we want to do it in the most convenient way possible for you. That's why we have TOLL FREE phone lines.

We want you to feel free to call us with your questions, problems, and orders. After all, you're the most important part of our business and we promise to always treat you that way. Why should you settle for less?



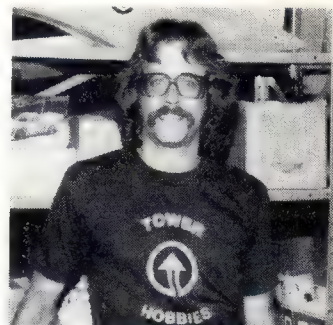
Linda Derossett - Shipping



Cristina Dial - Shipping



Linda Dykes - Phone Sales



Fred Ekstam - Returns Supervisor



Amy Fiscus - Asst. Phone Manager



Debra Franklin - Office



Brad Frazier - Phone Sales Manager



Brenda Gaskin - Phone Sales



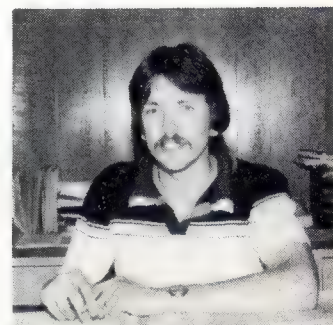
Darlene Gawthorpe - Shipping



Ann Goldstein - Office



Dan Gherna - Phone Sales



Alan Green - Marketing Manager



Susan Hacker - Terminal Operator



Heidi Hanson - Warehouse



Terri Hartsfield - Office



Connie Hatter - Head Extender



# **TOWER**

...WE'RE THE ONLY R/C



Bruce Holecek - President



Jeri Holecek - General Manager



Sandy Horn - Asst. Head Extender



Pat Jedele - Shipping



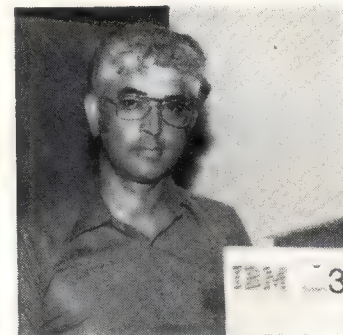
Karen Jerabek - System Operator



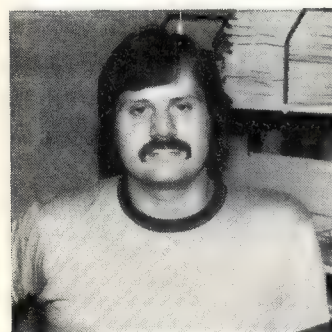
Letitia Johnson - Phone Sales



Pat Jenkins - Advertising Director



Leon Kelly - Data Processing Manager



Brent Kincheloe - Asst. Warehouse Mgr



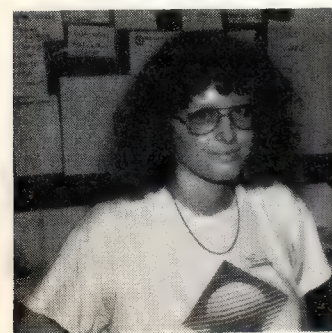
Rita Kincheloe - Terminal Operator



Dody Kirby - Shipping



LuAnn Kirkham - Office Manager



Susan Kiefstad - Receiving



Glenn Knudsen - Warehouse



Cheryl Koester - System Operator



Lorinda Li - Phone Sales



# HOBBIES

COMPANY YOU'LL EVER NEED!



Nancy Lovelady - Phone Sales



Pat Lowry - Warehouse



Hazel Lumsdon - Asst. Purchasing



Suzie Madore - Shipping



Barbara Malsberry - Phone Sales



Mary Michael - Shipping



Pat Mitchell - Phone Sales



Shirley Montague - Warehouse Mgr



Vickie Morris - Customer Service



Judy Muse - Phone Sales



Joe Oswald - Controller



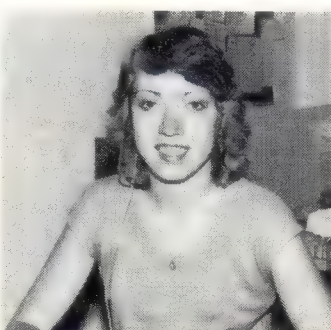
Dianna Pagel - Shipping



Jeannise Percival - Phone Sales



Rob Pierce - Phone Sales



Esther Piquard - Phone Sales



Cathy Primeaux - Office



# TOWER

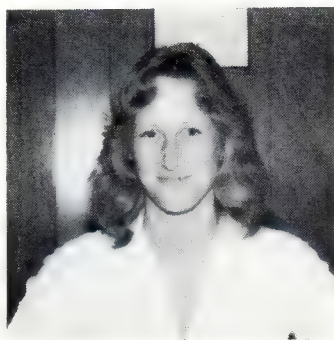
...WHERE YOU DO BUSINESS



Marguerite Rawdin - Asst. Bookkeeper



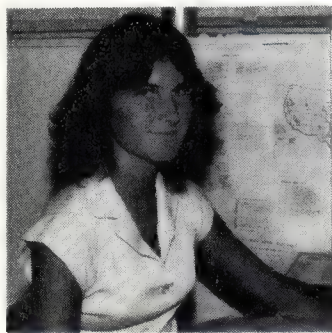
Claudia Satchell - Office



Heidi Schoper - Advertising



Paul Schott - Warehouse



Kim Scroggs - Order Extending



Kim Shamhart - Office



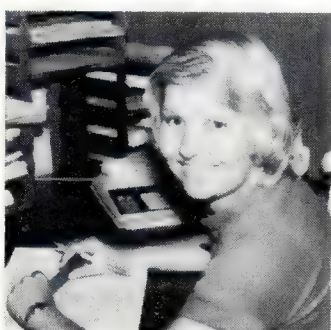
Teri Silver - Phone Sales



Donna Spracklen - Asst. Office Mgr.



Deborah Suhor - Head Bookkeeper



Eileen Taibl - Purchasing Agent



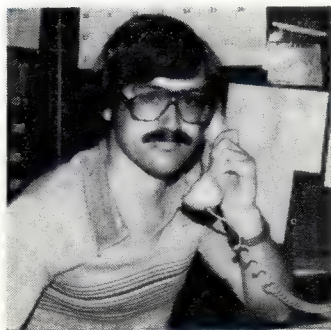
Kathy Tull - Head Packer



Sue Wade - Warehouse



Lou Walthall - Phone Manager



Michael Welcome - Phone Sales



Cindy West - Phone Sales



Mary Wolf - Shipping



# HOBBIES

WITH THE BEST AT NO EXTRA CHARGE!



Judy Wolski - Customer Service Mgr.



Lorraine Wyzgala - Office



Kathy Yeagle - Phones/Office



Susan Yount - Shipping



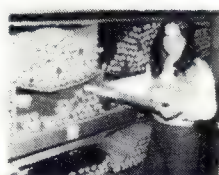
AS  
SOON  
AS WE  
RECEIVE  
YOUR ...



## TOWER SPEEDS YOUR ORDER TO YOU!



PHONE ORDER ... OR ... MAIL ORDER . . . . . WE CHECK IT . . . . . MAKE IT A FILE . . . . . COMPUTER PROCESS IT...



...DOUBLE CHECK IT . . . . . PICK YOUR ORDER . . . . . CAREFULLY PACK IT . . . . . AND SHIP IT FAST . . . TO YOUR WORKBENCH!

This sign says it all! Everyone of us here at Tower Hobbies is a professional—we're professionals at giving you super fast service with a smile! As soon as we receive your phone order on our Toll Free WATS lines or your mail order through the mail, things start happening! We immediately check it for completeness and correctness to make sure everything is absolutely the way it should be. Then we make you a file if this is your first order with us—this order and all future activity will be recorded in your file for future use. Next it goes to the computer where it is processed in a split second and a professional looking easy-to-read invoice is printed that becomes your bill of sale. Your entire order is then checked one more time before it is sent to the warehouse where the merchandise you ordered is picked from our extensive inventory. Everything you ordered is now carefully packaged by one of our "tender loving care" packers. At the end of the day United Parcel Service picks up your package (as well as some 650 others) and speeds it on its way straight to your workbench!



## INTRODUCTION TO RADIO CONTROL

# WELCOME TO THE WONDERFUL

## WHAT IS RADIO CONTROL?

Radio Control (R/C) is the activity in which a participant remotely controls a model. What it really is . . . is fantastic!! It's the excitement of piloting your own Air Force, commanding your own fleet, driving your own Indianapolis 500 racer, or jumping your own motorcycle just like Evil! It's the tremendously satisfying experience of being totally in control of a full functioning scale model that is just waiting for your next command!

The hobby of building and operating radio controlled models is a rapidly growing activity throughout the United States and all foreign countries. It appeals to young and old and people from all walks of life. It is very easy to become "addicted" to this highest level of modeling for the challenges are significant and the accomplishments are most rewarding.

R/C offers a wide variety of interest and activity levels so that each individual modeler can find exactly what he or she is looking for. Some prefer the building part of modelling and rarely, if ever, actually operate their models. Others only enjoy the flying, sailing, driving, etc., and prefer to leave the building to someone else. Those that are technically oriented often find that the design and installation of electronic and mechanical components is the most stimulating aspect of R/C modeling. But for most of us it is the fact that you don't have to be particularly good or proficient in any of these specialized areas in order to enjoy the hobby to its fullest.

Most of us enjoy building models. In fact most R/C'ers can trace their interest in model building back to their childhood when balsa

stick model airplanes and plastic ship and car kits were part of the experience of growing up. In R/C you can buy pre-built models, build your own from a kit, or go all the way by designing and scratch building your own creation. The same is true as far as the technical aspect of R/C. You can purchase, install, and very successfully operate any of the sophisticated components used in R/C models without having the slightest idea of how they work. Or you can really dig in and pursue the challenges of design, modification, and installation of radio equipment, engines, retractable landing gears, etc. as far as your technological expertise will carry you. And as far as skill levels of model operation is concerned, you can participate from a basic beginner level all the way up to full blown national competition. Both ends of the spectrum as well as all points in between are there for you to choose from in every aspect of R/C.

Like any leisure time activity, R/C has some start-up costs that have to be borne in order to participate. But here again, R/C offers the flexibility of choosing to what degree you wish to participate. Complete R/C packages range from under \$100.00 to over \$1000.00, with the higher costs being associated with bigger, faster, and more complicated packages. And fortunately for the beginner these attributes are not desirable, therefore the ideal beginner package costs somewhere around \$100.00.

Now that you know what R/C is and you've decided that you want to give it a try, let's move into actually getting started and choosing that all important first model.

## HOW DO I GET STARTED IN RADIO CONTROL?

Like any other new activity, you must learn to walk before you can run. In R/C the amount of assistance and practice you will need depends upon what kind of modeling you want to start with. At this point we will separate all R/C models into two very basic categories: those that fly and those that don't.

Let's take the easy one first. R/C models that don't fly include cars, tanks, boats, and motorcycles. If you choose to start with one of these then the learning process is relatively simple. You can teach yourself by trial and error since the consequences of an incorrect movement or control are not very serious. Just start slowly and you will quickly catch on. Your proficiency will increase tremendously at first and very shortly (within an hour or so) you will be doing a very respectable job. This is a very painless way to get introduced to R/C and it also provides a very good starting point for gaining the coordination necessary for controlling an R/C model that flies.

Now the hard one! "What goes up must come down," and there is where the problem lies. Something that comes down can do so either in a controlled or uncontrolled descent. The uncontrolled variety is called a crash, or in R/C lingo it's called a "dork". Crashes have a way of just ruining the whole day, as well as the airplane, and therefore are to be avoided as much as possible. So, the question then is—how do you go about learning to fly without dorking? Just read on!

Learning to fly R/C airplanes (powered airplanes, gliders, or helicopters) is very similar to learning to fly real airplanes in that you

need some formal instruction and supervision if you expect to do it properly and avoid "dorking it in." In the case of real airplanes you would enroll in flight training and would fly with an instructor in what is called "dual instruction." Your instructor shows you what and how to do maneuvers and then lets you try it. If you do it right—great! If not, he grabs the controls and saves the day. Well, to fly R/C without the needless waste and agony of "dorks", we need to get some "dual"

And this brings us to the most important element of this hobby we call "R/C"—and that is the club. There are over 1000 R/C clubs scattered throughout the United States and each one has an active membership of R/C enthusiasts. It is from this group that you should seek out your flight instructor and "sign-up" for some "dual." Some clubs have very active training programs where instructors are "certified and rated" by the club as to flying competence and instruction level proficiency. If you can join one of these clubs you have it made. If you don't know of a club in your area then contact the Academy of Model Aeronautics at 815 Fifteenth St. N.W., Washington, D.C. 20005 (phone 202-347-2751) for the name and location of the Club nearest you.

If there is no club in your area then try to find an individual that knows how to fly to help you. If still no luck and you have to learn on your own then pay special attention to the next section on model selection. At least we'll get you started with an airplane that gives you an excellent chance for success.



# WORLD OF RADIO CONTROL!!!

## WHAT KIND OF MODEL SHOULD I START WITH?

Let's divide R/C into three categories at this point: cars, boats, and airplanes. I will approach each category with what I think are the relevant considerations for model solution—all you have to do is decide whether you want to control your model on the ground, on the water, or in the air!

### R/C CARS:

All of the vehicles in the "Model Car Kits" section of this catalog qualify for this category. The main criterion for selection here is: how difficult is assembly and how much room for competition growth does the car provide? My idea of the perfect beginning R/C car is one that requires little or no assembly work, has the radio system already installed, is attractive and scale looking, and can be driven at a beginners slow level but has the capability of high performance in the hands of a proficient driver.

And the solution is the Latrax Corvette LTX-40 (see page 182 for this super machine). The Latrax Corvette comes complete in every detail. It is fully assembled, has the radio installed, has an attractive Corvette body in several colors (a different color for each frequency), and it is virtually indestructible even in the hands of a beginner. Now put it in the hands of a pro driver and hang on to your hat! This car really goes!

It's electric powered for quiet, clean, and easy use. It comes with rechargeable nicad batteries and charger, and complete radio system that features a "steering wheel" design transmitter. Also note the Latrax Porsche LTX-42 and Firebird LTX-41C—same car just a different body style. I just happen to like 'Vettes better!

### R/C BOATS:

All of the boats in the "Model Boat Kits" section of this catalog qualify for this category. The main criterion for selection here is: how difficult is assembly, how hard is it to find the necessary marine fittings to finish the boat, and how much room for competition growth does the boat provide. My idea of the perfect beginning R/C boat is the same as for the previous section on cars i.e., little assembly, radio installed, attractive, and capable of high performance.

And the solution is . . . NONE! None of the boats in this catalog fill the bill and that's because when it comes to boats we find that the trade-off for convenience is performance. We either get convenience and poor performance, or we get inconvenience and higher performance. Basically it comes down to this—a super pre-fab boat that comes with a radio installed and is already painted and decked out is usually marketed for a "casual" modeler who wants the boat for use in a pool or small pond. The result is an electric motor for power and that means no performance. And on the other hand the boat that is designed for a screaming model marine engine that has super high performance is usually designed and marketed to a "hard-core" modeler who wouldn't think of buying a pre-fab. The combination of the two would also cost far more than anyone would probably be willing to pay for it.

I do recommend, however, the Dumas Big Swamp Buggy for your consideration (see page 146). This will get you in the water with a minimum of construction time, radio installation is very simple, it goes like crazy when you strap a .60 size airplane engine on it, and it does not require any expensive and hard to find marine accessories.

It has great versatility in that you can run it on water, snow, wet grass, ice, etc. You can have an absolute ball with this one!

### R/C AIRPLANES:

All of the airplanes in the "Model Airplane Kits" and "Model Glider Kits" sections of this catalog qualify for this category. The main criterion for selection here is: how easy is it to learn how to fly? My idea of the perfect beginning R/C airplane is one that assembles quickly and simply, has excellent instructions, has a rugged crash resistant design, and most importantly has excellent stable flight characteristics.

And the solution is . . . the Craft-Air Drifter II glider (page 129) and the Craft-Air Piece O'Cake powered airplane (page 41). Take your choice! Either a glider or a .049 engine powered plane. Either kit is available as a package where everything you need is included with the kit except for a 2 channel radio. Both planes are designed as trainers and will give you that excellent chance for success I mentioned earlier in the event you are unable to locate an R/C club or an experienced individual to teach you how to fly. Both planes are designed for the absolute novice beginner and their completeness and excellent design certainly fill the bill.

All you need to complete the package is an inexpensive 2 channel radio. Any of the low priced 2 channels we carry in this catalog will work fine—don't spend anymore than you have to as they all work very well. This combination will give you a very stable, good flying trainer that is simply inexpensive, and quite forgiving in the hands of a beginner that is learning on his own.

Now, if you're fortunate enough to have that good instructor in that super club that we mentioned earlier, then my recommendation changes dramatically. I really believe that "the perfect trainer" is a high wing powered aircraft; uses a .40 or larger engine; is full-house i.e., rudder, elevator, engine and ailerons; and has the capability to be flown very slowly without stall tendencies yet can be really zipped around by a good pilot.

And the solution is . . . the MAN Trainer 40 (see page 116). This airplane was designed to do exactly what I've just outlined and believe me it really does it! It flies great and it is extremely stable yet it can be flown at any fun-fly and compete with the best. I recommend a K&B .40 R/C engine and a Tower 6 channel radio and Super Monokote for covering.

It costs more than a little 2 channel but then again it's a lot more airplane. And it's for that very reason that I recommend it to you—it's more airplane and therefore it flies better. It penetrates the wind better, is less affected by gusts, and it has the power to get you up, up, and away. Also, the ailerons provide fast and positive control that very simply make flying a whole lot easier! The initial expense is higher but the majority of that expense is engine and radio, and both of those can be used over and over again in other airplanes. This package allows you to grow within the hobby without outgrowing your engine and radio.

*Happy Flying,  
Bruce Holecek*



# MODEL AIRPLANE KITS

## POWER KITS

The vast majority of available R/C planes are powered. These aircraft are the ones with which we are most familiar, from the ones that buzz about the sky like gnats, to ones that simply drone along in circles. As we gain some knowledge, either by going to the field, by reading magazines, books, or even perusing this catalog, we find out that not only do the planes differ in lines, but each type is designed for a specific purpose.

Depending on your needs, desires, and experience, choice of a particular aircraft can be critical. A raw novice has no business choosing a complex scale replica of a World War II bomber, or a high performance racer; but, by the same token, the "old-pro" may not find enough challenge in lazing a slow trainer around the pattern.

For your convenience, we have compiled a list of the aircraft kits we carry, and have broken it down into various categories so that you can refer to this list to help you choose your next plane.

**Trainers:** In any hobby one must start somewhere. Trainers provide the novice with a good starting point (there is no end!) upon which to base their new hobby. Design characteristics include rugged construction, roomy fuselage compartments, large high wing, and gentle handling. These features give the novice the best possible chance to learn to fly with as little "re-kitting" as possible.

When you choose a trainer, we believe that you should get the largest plane your budget allows. Our reasoning is that a larger plane is less affected by the wind, and is much easier to see when it gets up in the sky. However, if your budget isn't able to take a large plane, do not hesitate to get a smaller one. They are all pretty good, so you will not go wrong choosing any of the planes we handle.

(Note: In each listing of the kits in each section, we have used our manufacturer's 3-letter code. Refer to the first page of the Price Listing Section for the full names of each manufacturer).

**Up to .049:** ACE Alpha; ACE Whizard; AIR Q-Tee; COX Cessna Centurion; CRA Piece O'Cake; GBG Ranger 42, Jr. Falcon, Jr. Skylane; MHH Quickie; MID Lil Tri-Squire; SOU Honker; STE Mini-Fledgling.

**.09-.15:** ACE Alpha; AFI Electra-fly; AND S-Ray, H-Ray; BRI T-10; GBG Ranger 42; MAR Bushwacker; MEN Trainer; MHH Small Wonder; MID Tri-squire, Cardinal ARF; STE Cessna 180; SUR Skylane 182, All-foam J-3; TOP Headmaster.

**.19-.29:** AFI Porterfield Collegiate; AND S-Ray, H-Ray; BRI Basic Trainer, T-20; FLL Skooter II, EZ Fli; MEN Trainer, J-3 Cub; MHH Miss Vintage; MID Livewire Champ, Tri-squire, Little Stick, Sweet Stick, Attacker; SIG Kadet, Kadet Jr.; STE Piper Cruiser; SUR Balsa J-3, Skylane 182, All-Foam J-3; TOP Headmaster.

**.30-.40:** AND H-Ray, Big H-Ray; BRI Trainer 40; CMP Geni Trainer; FLT Wilga Trainer, Cardinal; GBG Falcon 56, Skylane 62; JEN Ugly Stick; LAN Transit, Comet II; MAR Scorpion IV; MEN J-3; MHH Miss Vintage; MID Attacker, Livewire Champ, Sweet Stick; ORL Victory Stick, Liberty Stick, Polycraft; SIG Kommander; STE Piper Cruiser, Fledgling, Citabria; TOP Headmaster Sport 40, Freshman Trainer; TOW MAN Trainer 40.

**.45-.60:** BRI Trainer 60; GBG Sr. Falcon; JEN Ugly Stick; LAN Comet II; MID Cardinal Squire, Super Esquire; ORL Deweyville Special.

## Pattern Kits

Today's modern pattern ship is a sight to behold. They are sleek, fast aircraft that are designed to fly the maneuver pattern with smooth grace. The event is called "pattern" because every contestant flies the same set sequence of maneuvers, the same pattern . . . hence the name. These planes are definitely not for the novice builder or flier. The complexity of some of their system, the necessity for absolute attention to the details of aligning the airframe, and the skills needed to fly the bird, preclude the novice from starting with these aircraft.

All of the planes that we have listed as "pattern" aircraft are called such by their manufacturers. Some of these are planes that once were of top level capabilities, while others are capable of all of the pattern maneuvers. They are:

**Up to .049:** ACE Mach-None, Pacer; AIR Warlock; SUR Baby Birdy.

**.19-.29:** ACE Super Pacer; BRI Tweedy Bird; LAN Scamp.

**.30-.40:** AIR Warlock 40; AND Trainermaster; BRI Super Kaos 40; Dirty Birdy 40; LAN Scamp; MID Pattern Master; Sig Kougur; SKY Phoenix V.

**.45-.60:** AND Sportmaster; ARO Phoenix 8; BRI Deception, Kaos, Super Kaos 60, Dirty Birdy 60, UFO; LAN Caprice, Jester II; MID Mach-I; SIG Komet; SKY Vertigo II, Phoenix VI; TOP Taurus.

## Scale Aircraft

Scale aircraft are called such because they are scaled-down models of actual aircraft. The amount of detailing is left up to the individual builder. You can go from a plane that just looks like the real thing in a superficial way, to one that is detailed to the coffee stains on the pilot's tie! We offer a wide variety of scale ships so that you can have the largest choice in selecting your favorite bird. Remember, we can supply you with nearly everything you'll need to make your model the best one around (you'll have to supply the coffee stains)!

**Up to .049:** ACE Shrike Commander; FLY Bellanca, Curtiss Robin, Aristocrat, Kinner Sportster, Fairchild 22, Travel Air; HOU all planes in 1/2A series; MID A4D Skyhawk, Taylorcraft; STE 1/2A Corsair.

**.09-.15:** AFI Fournier RF-4, P-68 Victor; CRA Buhl Bull Pup; HOU Pietenpol; MID Super Chipmunk; OHS Zlin Z-50L; STA Buccaneer; STE Cessna 180, 1/2A Corsair.

**.19-.29:** AFI P-68 Victor, Porterfield Collegiate; HOU Pietenpol; MEN J-3; ROY P-68 Victor; SIG Piper J-3, Clipped-Wing Cub; STA B-24 Liberator, Buccaneer; STE Tri-Pacer, Cessna 180, PT-19, S.E. 5a, Piper Cruiser; SUR Balsa J-3, Skylane.

**.30-.40:** BRI Shrike Commander, F-7F Tiger Cat, HOU P-51 (29-40); JEM PT-19, F6F Hellcat, P-51, ME-109, FW-190 D-9, F4U Corsair; MEN J-3; ROY Cessna 182 Jr., Hein Jr., Zero Jr., Spitfire Jr., Piper Colt Jr., Bleriot X1, B-25, P-38, Cessna 310Q, Cessna Skymaster, Douglas C-47; SIG Cessna 150, Super Chipmunk, Smith Miniplane; STA Twin Comanche, P-39, Airacobra; STE S.E. 5a, Citabria, Piper Cruiser, Stinson Reliant, Waco; VKK Corben.

**.45-.60:** JET F9F-8 Cougar, Mirage III; MID Pitts Special; PRC Nieuport II; ROY Cessna 206, FW-190, Corsair, F-4J Phantom, Cessna 182, Spirit of St. Louis, Pitts Special Hein Sr., Oscar, Zero, Spitfire, Piper Colt Jr., F8F Bearcat, S2 Pitts Special, Beech Staggerwing, P-51 Mustang, JU-87D Stuka; SIG Cessna 172, Beechcraft A-36, Citabria, Ryan; STA Liberty Sport, Skybolt; SKY P-47, F8F Bearcat; STA P-39 Airacobra, Comanche, Aircoupe; STE Stearman PT-17, Fokker D-VII, Stinson Reliant, Waco; TOP S.E. 5a, P-51 Mustang, P-40 Warhawk, P-39 Airacobra, P47 Thunderbolt; VIO Violet Skyhawk; VKK Fokker DR-1 Triplane, Nieuport 17, Sopwith Camel.



**.60-Up:** AFM F-106 Delta Dart, F-86 Ducted Fan Jet; BRI P-51, AT-6 Texan, Lockheed Sirius, Kraft Super Fli, T-28, Spitfire, Corben "Baby Ace," Corben Ace 1/4 scale, Dalotel, CAP 20L, Rearwin Speedster; MAL Laser 200; NOS Aeronca Champ, Cessna 310, Citabria, J-3 Cub, Mr. Mulligan, Gere Sport, Jenny, P-51D.

## Pylon Racers

Racing! Just the sound of that word makes the blood run! The image of powerful machines coursing around the circuit at peak performance makes anybody get a thrill just thinking about it.

Today's pylon racer is a specialized bird. Designed to tight restrictions, it offers the maximum excitement in the smallest package. You'll need a design that fits the rules, a special racing engine, lots of practice, and a love of head-to-head competition. It goes without saying that you'll have to be an expert flyer in order to fly one of these birds.

Formula I is the top of the line. They use the hottest .40 size engines, and can exceed 140 miles per hour. 1/2A racing was developed to allow one to race with a small budget, yet still give the competitor the maximum amount of racing. 1/4 midget was originated with the same idea in mind, but now is just a smaller version of Formula I . . . they use hot .15's. Club racing, is for the person who would like to try racing, but doesn't want to invest in the trick equipment . . . those planes use standard .40's and are of simple construction.

**1/4A Pylon:** ACE GLH-II; SPI Quickie 200

**1/4 Midget:** PRA 1/4 Midget LIL TONY

**Formula I:** PRA LIL Tony

**Club Racers:** BRI Quickest 500, 15-500; SPI Quickie 500

## Biplanes

Nostalgia is upon us, and this has helped the biplane to come into its own in radio-control. The model biplane evokes the era of the open-cockpit, the smell of oil thrown from the engine, and the itinerant barnstormers who would drift from town to town in order to make their living. It's amazing, but every time someone brings out a biplane at the model field, people just have to look at it first. Perhaps it's the image of iron men flying a wooden craft that makes us do it.

The model biplane is usually as well-behaved in flying characteristics as its one-wing brothers, but the shortness of its wing span allows it to have a much faster roll rate than other planes. Add to this the fact that they are usually short-coupled in tail length, and this adds up to a plane that can become highly maneuverable without much hesitation. Novices will find that the response of a biplane will be a bit quicker than they are used to. Biplanes, with very few exceptions, should be left until you become at ease with flying a medium to high performance low-wing aircraft, but once you master one of these planes, you'll just have to keep one in your airplane stable.

**.09-.15:** ACE All-Star Bipe; MHH Quickie Bipe; SOU Honker Bipe; STE Wizard.

**.19-.29:** SOU Honker Bipe; STE Wizard, S.E. 5a.

**.30-.40:** SIG Smith Miniplane; STE S.E. 5a, Waco.

**.45-.60:** AND Aeromaster; ORL Pup, Fokker D-VII; PRC Antic Bipe, Nieuport; ROY Pitts Special S-2a, Staggerwing Beech; SIG Liberty

Sport, Skybolt; STE PT-17, Fokker D-VII, Waco; TOP S.E. 5a; VKK Nieuport 17, Fokker DR-1 Triplane, Sopwith Camel.

**.60-Up:** NOS Gere Sport, Jenny.

## Sport Planes

This group of planes is really a catch-all grouping. Actually, any R/C plane can be called a "sport plane," since the primary reason we are all in this crazy hobby is to enjoy ourselves. The name "sport plane" means just as it says: a plane to sport around with. A sport plane is not designed to meet any criteria, but it can be. It may not be used in competition, but could be. We could go on and on. What we have done here is list the planes that do not really fit into any of the other categories, but are not plentiful enough to warrant a category for each different type of plane.

**Up to .049:** ACE Dick's Dream, Littlest Stick; MHM Joystick.

**.09-.15:** MHM Super Joystick; TOW Shrike Commander.

**.30-.40:** PRC Mini-Antic; VKK Cherokee Babe; WIN Love Machine.

**.45-.60:** PRC Antic, Antic Bipe; VKK Cherokee.

**.60-Up:** MID Super Esquire.

**.90-Up:** NOS Big Stick.

## Multi-engine

If you like lots of engines, we can offer a good selection of multi-engined planes, in a variety of sizes, although you'll find that most of them are for two .40 engines. You must have identical engines that have been run enough to guarantee perfect reliability. A lot of flying experience will also stand you in good stead.

A few things to remember: Multis (especially twins) need to have all of the fans turning, so if one engine dies, throttle back, and bring her down to land. Don't try to keep her flying level, as you can stall out the plane quite easily. Use rudder to keep the plane from turning into the dead engine . . . aileron will work, but you'll have difficulty during landing. While you have an engine out, do not make any abrupt throttle movements at all, as the asymmetrical thrust can give you terrific handling problems . . . especially if you jam the throttle forward — this causes the plane to react to the increased thrust immediately, and you may find the plane going into an uncontrolled spin. This can ruin your whole day!

**Up to .049:** ACE Shrike Commander; GBG Jr. Skylark; MHH P68.

**.09-.15:** AFI P-68 Victor; TOW Shrike Commander.

**.19-.29:** AFI P-68 Victor; GBG Skylark 56.

**.30-.40:** BRI Shrike Commander; BRI F-7F Tigercat; PIC Duelist Twin; ROY B-25, P-38, Cessna 310, Douglas C-47, Cessna Skymaster, P-68 Victor; STA B-24 Liberator, Piper Twin Comanche.

## EASY BUILDERS

The following kits are especially easy to build, so if you are interested in getting into the air as quickly as possible you might consider one of these excellent almost-ready-to-fly kits:

**Up to .049:** COX Piper Arrow, Archer, Centurion, Sportavia, Electric Sportavia, Cub; GBG Ranger 42; KRA Electric Cardinal, Electric Chipmunk; MID Cardinal; SOU 1/4A Honker; SUR 1/4A Cub, 1/4A Baby Bridi.

**.09-.15:** LAN Cessna; MID Cardinal, Super Chipmunk; MRC Chipmunk, ME-109, Hawk; SUR Cub (foam); SKY 182, Pete.

**.19-.29:** LAN Pinto, Cessna; MID Super Chipmunk, Attacker; SOU Honker Bipe.

**.30-.40:** LAN Transit, Pinto; MID Attacker; SUR Spitfire.

**.45-.60:** ACM FB-100; LAN Transit, Jester II, Caprice, Comet II.



## ACE

# PACER

A UNIQUE 1/2 A PATTERN SHIP

Designed by Owen Kampen



The Pacer is a high performance 1/2A powered plane designed to have the fast speed, solid tracking, smooth maneuvering, and axial roll characteristics of modern pattern ships in a small, compact, economical package based on a Cox Tee Dee .049 or .051 and a two-channel radio with miniature servos and a small battery pack.

This airplane offers more excitement and ability-to-perform than ever seen before in its size class. All of the advantages of small airplanes are maintained: it builds fast, it is economical on fuel, it transports easily, it can be flown in the smallest of fields with no need for a runway. With all of these advantages, it still has the outstanding performance to challenge the best of fliers.

All parts are band sawed and precision sanded with foam wing.

### Pacer Kit

Span-40"

Length-30"

Weight-Approx. 22 oz. all up

Engine-Cox Tee Dee .049 or .051

Functions-Ailerons/elevator or coupled ailerons-rudder/elevator



# MACH-NONE

### Mach None Kit

Span: 40"

Weight: 20-23 oz.

Engine: Tee Dee .049/.051

Functions: Ailerons/Elevator

With immediate, worldwide acceptance, the Ace Pacer revolutionized small plane concepts by opening a whole new category of R/C model aircraft: the high performance 1/2A pattern ship.

Now Ace R/C proudly announces the second kit in this exciting new category of R/C planes, the Mach None. It has the same outstanding features as the Pacer: it's fast building and economical on fuel, is easily transportable, and needs a minimum of flying field area. Yet, its performance needs to be experienced to be believed.

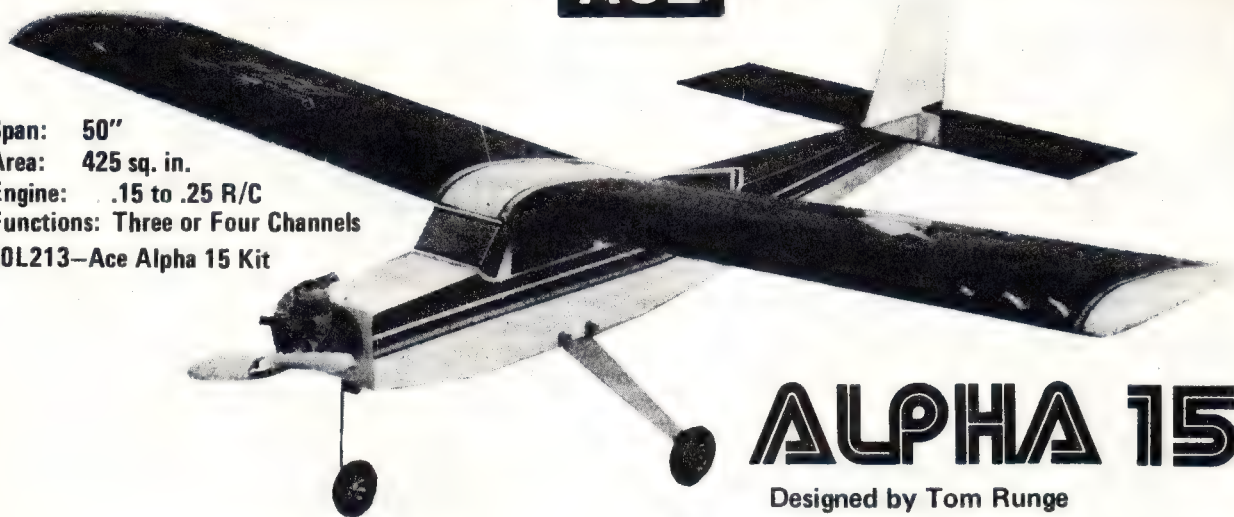
Has fully formed parts with molded canopy and foam wing. Is for at least two channel radios with small servos. Not for beginners.



## ACE



Span: 50"  
Area: 425 sq. in.  
Engine: .15 to .25 R/C  
Functions: Three or Four Channels  
50L213-Ace Alpha 15 Kit



# ALPHA 15

Designed by Tom Runge

A big brother to the Alpha, the Alpha 15 is a sturdy, easy to build, rock stable trainer/sport plane for three or four channel control and a .15 to .25 engine. On a .15 this plane will easily take off of grass and has plenty of power for loops and rolls. It doesn't have any bad spin or snap roll tendencies and has excellent slow flight characteristics.

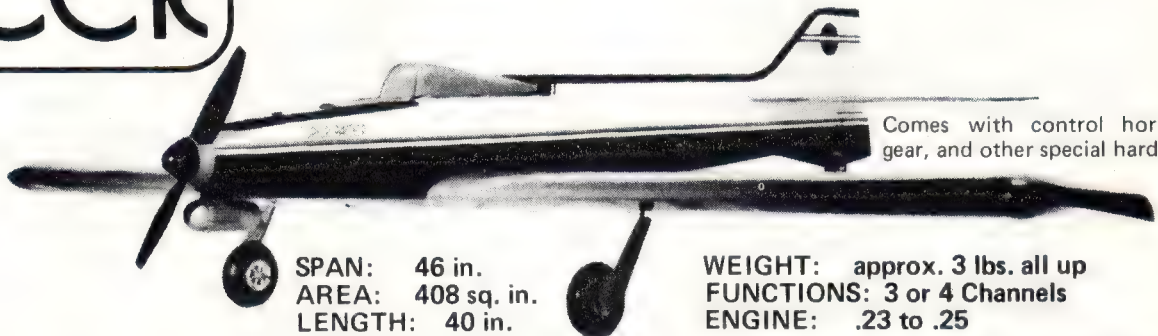
Plywood fuselage and built up wing construction is featured for sturdiness and durability. Even at the reasonable price, the kit contains complete hardware: steerable nose gear, formed main gear, all control linkage and hardware; all you need to complete the model is tools, glue, finishing material, engine with mount, tank, wheels and radio.

A perfect full house trainer/sport plane!

# SUPER PACER

A .23 POWERED PATTERN SHIP  
FOR SPORT AND COMPETITION

DESIGNED BY OWEN KAMPEN



Comes with control horns, landing gear, and other special hardware.

SPAN: 46 in.  
AREA: 408 sq. in.  
LENGTH: 40 in.

WEIGHT: approx. 3 lbs. all up  
FUNCTIONS: 3 or 4 Channels  
ENGINE: .23 to .25

FIRST CAME THE PACER--it started a whole new revolutionary category of model planes, the 1/2A pattern ship. Then people wanted a larger, fully competitive version with the same features--good looks, easy construction, sensible design, light weight, fuel economy, and solid performance at an affordable price. Here it is, the Super Pacer. For the economically minded pattern ship flier.

All balsa and ply construction. Quick to build, light and sturdy to last long. It has to be a sin to get so much enjoyment out of the performance obtained at so little expense.

ACE72100	ACE DICK'S DREAM
ACE72105	ACE WHIZARD
ACE72107	ACE PACER
ACE72108	ACE MACH-NONE
ACE72109	ACE SUPER PACER
ACE72111	ACE LITTLEST STICK
ACE72112	ACE AEROCOMMANDER SHRIKE

13.50	11.45
20.50	15.50
21.50	15.95
21.50	15.95
32.95	23.95
4.95	4.70
29.95	22.50

22
22
20
20
21
22
22

ACE72113	ACE GUPPY 02 POWER GLIDER
ACE72114	ACE 50L212 ALPHA .049-.09
ACE72115	ACE 50L213 ALPHA .15
ACE72200	ACE ALL STAR BIPE
ACE72210	ACE 50L210 1/2 A GLH II FOAM
ACE20001	ACE TAPER FOAM WING
ACE20002	ACE CONSTANT FOAM WING

9.95	8.45	22
21.50	15.95	22
39.95	27.95	21
25.50	18.95	22
17.95	13.95	22
3.50	3.35	374
3.50	3.35	374



## ACE

### dick's dream

IDEAL FOR THE BEGINNER

Designed by Owen Kampen

SPAN: 32 in.  
AREA: 185 sq. in.  
LENGTH: 25 in.  
WEIGHT: 12-14 oz. all up  
POWER: Pee Wee or Tee Dee .020  
FUNCTION: Rudder-Only

The Dick's Dream is the standard for rudder-only trainers. Many, many people have made the Dick's Dream with Pee Wee .020 and the Pulse Commander Baby Twin their first successful R/C airplane.

Construction of the die cut parts and the foam wing is very easy and the step-by-step instructions are written especially for the beginner. Complete radio installation details are included.

With a Tee Dee .020 and a Baby Twin, a properly trimmed Dick's Dream is able to rudder-only aerobatics with the best of 'em.

Can also be easily adapted to a sport free flight.

Dick's Dream Kit

### Whizard

Designed by Owen Kampen

THE PERFECT SPORT AIRPLANE

SPECIFICATIONS  
Span-40 in.  
Area-240 sq. in.  
Length-30 in.  
Power-.045 to .061  
Functions-Rudder-Only;  
Rudder-Elevator; Rudder-Elevator-Throttle.

An ideal sport airplane for .045-.061 engines and single, two, or three channels. Features sturdy crutch fuselage construction, foam wing, band sawed parts, formed landing gear, and photo illustrated instructions.

Because the financial and emotional investment is low in the Whizard, you will find yourself doing more gutsy things flying this airplane and enjoying it more than ever before. Fun is the major characteristic of the Whizard.

An often overlooked attribute of the Whizard is how well it performs as a Rudder-Only trainer. With an Ace Stomper System, Golden Bee .045, and a 6 x 4 prop it is a docile, stable, easy-to-fly and build plane perfect for the beginner.

Whizard Kit

### TWIN ENGINE MULTI ON A SINGLE CHANNEL BUDGET!

Features foam wing/balsa construction. Comes complete with hardware including motor mounts!

designed by Ken Holden

NOT A BEGINNERS  
AIRPLANE

Span - 48"  
Weight - 32 oz.  
Three or Four Channels  
Two TD .049's

**Aerocommander  
SHRIKE**

50L208

### FOR YOUR FIRST R/C ADVENTURE!

### Guppy

designed by TOM RUNGE

Span: 34"  
Area: 160 sq. in.  
Weight: 8 oz. all up  
Engine: Pee Wee .020  
Radio: Pulse Commander  
Baby or Baby Twin

A Pee Wee .020 power assist rudder only glider designed expressly for the beginner and the Pulse Commander Baby or Baby Twin radio system.

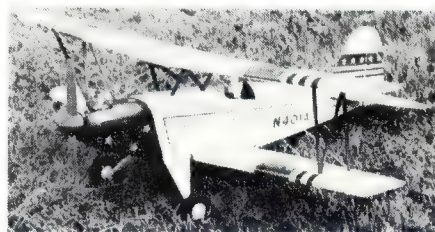
The 34" span foam wing and simple, yet attractive balsa fuselage make for quick and easy construction. Gentle flight characteristics are ideal for making the first R/C attempt successful.

### ALL STAR

POPULAR SPORT BIPLANE

Designed by Romey Bukolt

The All Star is a consistent favorite of biplane fans. Its classic lines are reminiscent of the barnstorming biplanes of the 30's and some of the current EAA homebuilts. Foam wings overcome the biggest stumbling block of biplanes; that is, building two wings. The other parts are precision band sawed and sanded.



SPAN: 34 in.  
AREA: 400 sq. in.  
LENGTH: 28 in.  
POWER: .08-15  
FUNCTIONS: Rudder-Elevator or Rudder-  
Elevator-Throttle

All Star Kit

Alpha - the ideal small sized trainer/sport airplane. Light ply fuse construction & a double sparred foam wing allow for strength under rigorous flight conditions. In addition, the high wing with a flat bottom airfoil provides stable flight with good slow speed & glide characteristics. Includes complete hardware.

### ALPHA

DESIGNED BY TOM RUNGE

50L212-ALPHA KIT



PLY FUSELAGE, FOAM WING TRAINER  
FOR THE NOVICE AND SPORT FLYER

### the "Littlest Stick"

designed by: FRED REESE

Span: 19 1/2"  
Area: 83 sq. in.  
Length: 15 1/2"  
Weight: 5.75 oz. all up  
with Baby System and  
Cox .010  
Engine: Cox .010 or Pee  
Wee .020

Littlest Stick

An extension of the "Stick" concept of box fuselage, simple wing, quick construction, and good performance, the "Littlest Stick" offers snappy rudder only performance on a shoestring budget.

This is a fun plane that can be completely built and ready to fly in one evening and is expressly designed for the Ace Baby Rudder Only System and a Cox .010 or Pee Wee .020.

Flight performance is very agile and fast but with completely predictable response so the plane is not "antsy". Any schoolyard or even a largish backyard can do as a flying field.

A complete R/C plane kit for under \$5.00 from the small plane experts, Ace R/C. Not recommended as a beginner's first attempt.

SEE PAGE 21  
FOR ACE KIT  
PRICES,

### GLH II

An all out speed wing 1/2" racer that is currently sweeping West Coast competition. Fast and solid performance with good tracking and excellent response.

Kit available with foam wing. Complete hardware including motor mount and spinner.

GLH stands for "Goes Like Heck" - You better believe it.

50L210-GLH II, foam wing

SEE PAGE 374 FOR ACE MINI FOAM WING



## AERO COMPOSITES

### SPECIFICATIONS

WING SPAN: 64"  
WING AREA: 730"  
LENGTH: 56.75"  
FLYING WEIGHT: 8.5 lbs.  
ENGINE: .60  
RADIO: 4+ CHANNELS

Designed by: Don Lowe



## PHOENIX 8

### COMPETITION PATTERN AIRCRAFT

Don's latest design is his most beautiful yet, both in appearance and flying qualities. The wing and stab have been repositioned to virtually eliminate roll coupling with rudder. Wing area has been increased to carry the weight of today's engines and tuned pipes. The fuselage has been recontoured to provide maximum strength with a minimum of weight (19 oz.). Aero Composites has strived to make the Phoenix the highest quality kit available. Only aircraft grade epoxy resins and cloth are used. The kit features molded canopy detail, stab fillets, and pushrod guides. The

belly pan includes molded wing bolt recesses. The foam blocks are faced to provide accurate building/alignment jigs with wing dihedral pre-cut in the blocks. Provision has been made for optional "flying stab" installation. Full size plan and detailed instructions are included. This deluxe kit features a complete wood package, highest quality motor mount, and control surface hardware.

ARC74C00 AERO COMPOSITES PHOENIX 8

89.95 84.95 23

## AIR CAPITAL MODELS

The FB (Fun Bird) 100 is different than any ARF on the market today. It is a completely ready to fly airplane (without engine and radio). All controls are installed with pushrods attached. Fuel tank and plumbing is complete. Landing gear and wheels are included. There is absolutely no building to do. You install engine, radio and FLY! The FB is NOT another plastic airplane. The fuselage is "wrap-around" birch plywood reinforced with balsa doublers, triplers and plywood bulkheads. The wing is cut foam core, covered with a .012 thick skin. Two birch plywood spars makes this wing one of the strongest on the market.

You will find that the FB 100 is strong and light, has excellent flight characteristics and features one of the most beautiful urethane paint jobs around.

This is the same outstanding airplane that Tower Hobbies used in its famous "Tower Nats" in 1976 where Phil Kraft, Joe Bridi, Jim Martin, Ron Chidgey, and Jim Whitley dueled to the death in a super dog fight.

## INTRODUCING THE FB 100

ALMOST READY  
TO FLY!

JUST ADD YOUR RADIO AND  
ENGINE AND YOU'RE READY  
FOR TAKE-OFF!!

### SPECIFICATIONS

Wing Span . . . . . 57"  
Wing Area . . . . . 623 Sq. In.  
Air Foil. . . . . Full Symmetrical  
Length . . . . . 45.5"  
Controls . . . . . Aileron, Elevator, Rudder, Throttle  
and Nose Gear  
Weight (W.O. Engine or Radio) . . . . . 3lb. 13 oz.  
Engine . . . . . .40 to 61



### DELUXE FEATURES

- \*Pneumatic Wheels
- \*Steerable Nose Gear
- \*Quality Hardware Throughout
- \*Beautiful Urethane Paint Job
- \*Foam Strip Wing Cushion
- \*Propeller Spinner Included
- \*Servo Tray Rails Installed

ACW74C00 AIR CAPITAL MODELS FB-100 RTF

149.95 144.95 23



## AIR FORMS INC.

# THE SABRES ARE HERE!! SPORT-STANDOFF SCALE



A KIT FOR THE EXPERIENCED MODELER!

**AIR-FORMS, INC.** presents to you the exciting North American F-86 in ducted fan form. This kit is designed for the Sunday flyer and serious scale modeler alike. It can be built and flown on a modest budget, or given the full treatment, be a winner in any Standoff Scale contest. Our concept, with this first offering, is to bring the realm of jet aircraft to the average modeler without destroying his pocketbook. Other jet aircraft will follow as they are developed, always keeping in mind the needs of the sport modeler.

Our kits are designed to be light, easy to build, and have a minimum number of parts. All balsa parts are machine-cut and selected for lightness and strength as required. The fuselage is light weight epoxy-glass and the wing cores are foam. Tail surfaces are sheet balsa. Decals and proof of scale are furnished in the kits. Landing gears are pre-bent and a scale canopy is provided.

Along with the usual plans and building instructions, we take you through the installation and flying aspect of ducted fans. There is a special section on increasing the performance of your aircraft at minimal cost, other engines and their performance ranges, flying techniques unique to ducted fan aircraft, and other practical ideas. A fan unit is NOT included in each kit. We recommend the MIDWEST RK-40 fan unit and installation instructions are provided. A 4 channel radio is required.

The F-86 flight performance is as a jet fighter should be! The light wing loading and low overall weight combined with a non-critical airfoil result in flight response that is excellent. Depending on your resources and desires, you can power the aircraft with a regular front rotor .40 or move into the newer ABC type racing engines. Check out the data below and join us in the world of the jets!!

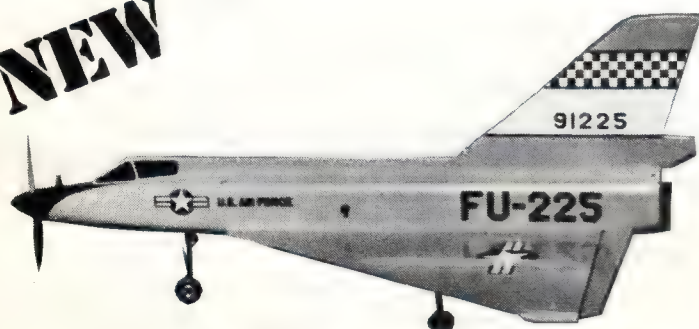
WINGSPAN: 49"  
WING AREA: 616 Sq. In.  
WEIGHT: 6 Lbs. (ready-to-fly)  
WING LOADING: 22.8 Oz./Sq. Ft.  
FUSELAGE LENGTH: 50"  
ENGINE: .40 Front Rotor (basic)

ITEMS NOT INCLUDED IN KIT:  
Material for mounting ducted fan, inlet and outlet plywood, and wing sheeting.

## PLUS . . . .

This outstanding kit now comes with a 50 page color scale data booklet that shows many authentic paint schemes along with all specifications and details of the real aircraft. This booklet is everything you would ever need for proof-of-scale documentation.

# NEW



RADIO: 4 Channel  
ENGINE: .40 Size  
WING LOADING: 19-23 Ozs./Sq. Ft.

# F-106 DELTA DART

A real attention-getter at the field and in the air! This lightweight, stand-off scale, sport aircraft is designed for the intermediate flyer. Features fast, all-balsa construction, plywood and hardwood parts, full size plans, instructions, landing gear and hardware. With a "hot" .40 in the nose, this aircraft will really take off!

AF#73106	AIR-FORMS F-106 DELTA DART	54.95	43.95	24
AF#74000	AIR-FORMS F-86 DUCTED FAN JET	134.95	114.95	24



## AIRTRONICS

AIRTRONICS KITS ARE ALL Balsa

### WARLOCK .40

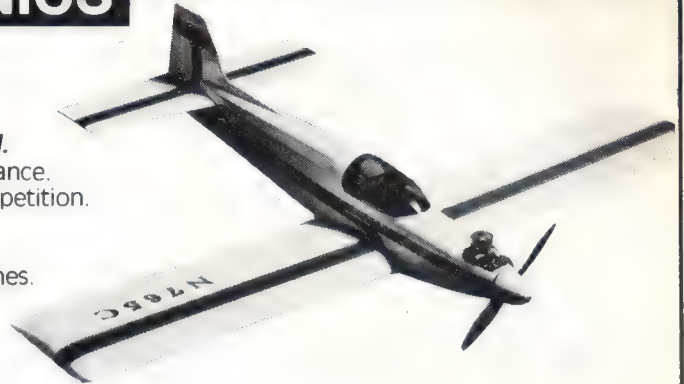
.40 size Sport Pattern Model.

- ☐ Distinctive appearance and styling.
  - ☐ Highly prefabricated structure.
  - ☐ Fully stuntable with easy handling.
  - ☐ For popular front rotor .40 cu. in. engines.
- Wingspan: 52.0 inches.  
Fuselage length: 41.0 inches.

### WARLOCK .05

1/2 A Sport Pattern Model.

- ☐ Sleek, distinctive appearance.
  - ☐ Legal for 1/2 A pylon competition.
  - ☐ Power with T.D. .051.
- Wingspan: 32.5 inches.  
Fuselage length: 29.25 inches.



## Super Cub

New, 1/5-scale model.

The Super Cub (flapped version of the J-3) is to be kitted by Airtronics. In 1/5-scale, the model spans 85", and flies on .60-.90 size engines.

(At the time of printing, release date is unknown.)

AIR74200 AIRTRONICS SUPER CUB PRICE UNAVAILABLE AT PRESS TIME



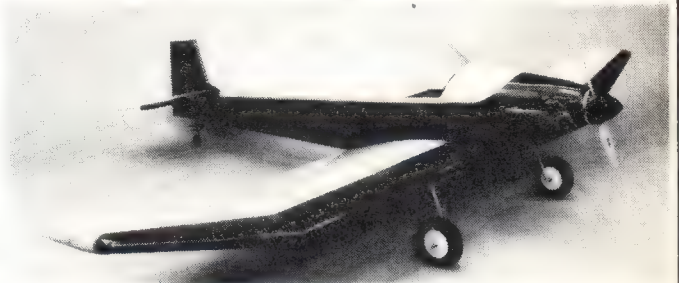
## Jodel 1/4-Scale

New, compact 1/4-scale model.

Airtronics' 1/4-scale Jodel is rather compact, with its 70" span. It flies most realistically on a .40, and is aerobatic on a .60.

(At the time of printing, release date is unknown.)

AIR74100 AIRTRONICS JODEL PRICE UNAVAILABLE AT PRESS TIME

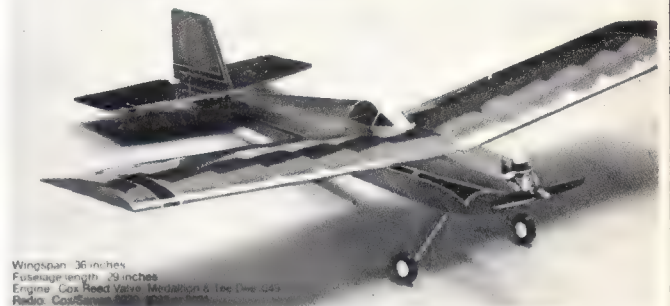


## S-Tee

Shoulder wing version of the popular Q-Tee.

This new kit offers a step-up model with room for a throttle control servo. Same rugged structure and ease of building as the Q-Tee. For 2 or 3 channel radios and Cox .049 engines.

Wingspan: 36"  
Fuselage length: 29"  
Engine: Cox Reed Valve, Medallion & Tee Dee .049  
Radio: Cox/Sanwa 8020, 8120, 8130



Wingspan: 36 inches  
Fuselage length: 29 inches  
Engine: Cox Reed Valve, Medallion & Tee Dee .049  
Radio: Cox/Sanwa 8020, 8120, 8130

## Q-Tee

The most popular 1/2 A trainer in the country.

Designed for the novice. This model is very easy to build and fly. Rugged structure helps to survive pilot error. For 2-channel control and Cox .049 reed valve engines.

AIR71102	AIRTRONICS 102 Q-TEE 1/2 A	23.95	19.55	25
AIR71104	AIRTRONICS 104 S-TEE	23.95	19.75	25
AIR72303	AIRTRONICS 303 WARLOCK .05	32.50	25.95	25
AIR73304	AIRTRONICS 304 WARLOCK .40	69.95	52.45	25



Wingspan: 36 inches  
Fuselage length: 29 inches  
Engine: QRC Black Widow, Golden Bee  
Radio: Cox/Sanwa 8120



## ANDREWS



*MOST POPULAR RC BIPE EVER!*

### AEROMASTER SPECIFICATIONS:

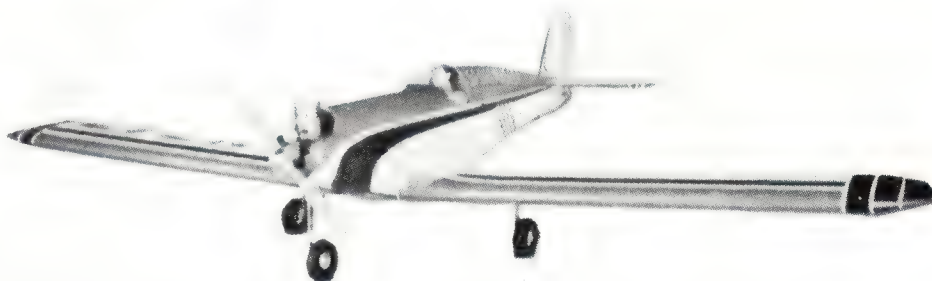
#### ARC-3 AEROMASTER "TOO"

Wingspan: 52½ in.      Area: 910 sq. in.  
 Engine: .60 - .78      Weight: 6-7 lb.  
 Material: Balsa  
 The most sought-after kit in the world. AAMco quality and precision engineering throughout.

### SPORTMASTER SPECIFICATIONS:

#### ARC-4 SPORTMASTER

Wingspan: 65 in.      Area: 715 Sq. in.  
 Engine: 40 - 78      Weight: 6-7 lbs.  
 Material: All Balsa  
 A constant chord wing full house real looking model that can be built easy and fast. The sportmaster is capable of pattern flying and also can be used for all out free-style flying along with being an all around darned good sport - fun flyer.



### SPECIFICATIONS:

#### ARC-5 TRAINERMASTER

Wingspan: 53½ in.      Area: 575 sq. in.  
 Engine: 40-60      Weight: 4½-5½ lb.  
 Material: Balsa  
 For the particular multisport RC modeler. Maximum training in minimum time. Another engineering and performance triumph. Really quick assembly.



For the  
*Particular*  
 Multi *Sport*  
 R/C Modeler

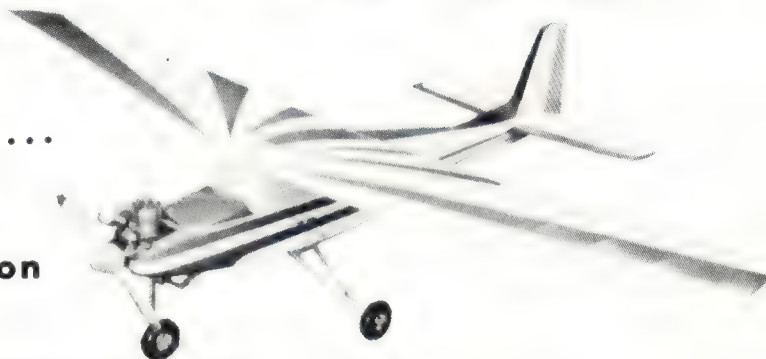
### SPECIFICATIONS:

#### ARC-6 A-RAY

Wingspan: 52½ in.      Area: 480 sq. in.  
 Engine: 19-40      Weight: 3½-4½ lb.  
 Material: Balsa  
 Take it off! Have a ball! The A-Ray does it all! All quality and craftsmanship in an aerobatic high-winger.

Featuring ...

**BOX-LOK Construction**



### SPECIFICATIONS:

#### X-RAY

Wingspan: 56"      Area: 560 sq. in.  
 Engine: .35 - .45  
 Material: Balsa fuselage, balsa wing  
 A beautiful .40 size sport aircraft, fully aerobatic and yet very docile. This kit features boxlock construction and built-up wing and tail surfaces. Most hardware included.





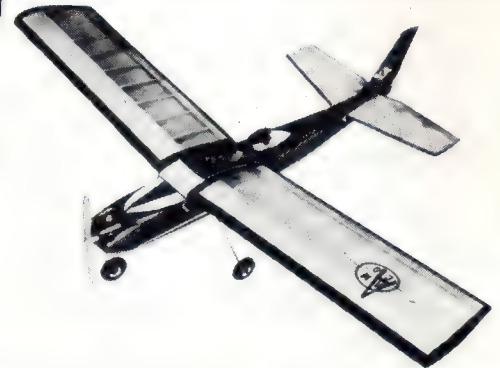
## ANDREWS

### SPECIFICATIONS:

#### ARC-1 S-RAY

Wingspan: 50 in. Area: 425 sq. in.  
 Engine: 15-29 Weight: 3-4  
 Material: Balsa  
 The economy basic trainer, companion of the H-Ray. The fastest construction of any kit in the world except ours.

DESIGNED by  
*Lou Andrews*



### SPECIFICATIONS:

#### ARC-2 H-RAY

Wingspan: 50 in. Area: 425 sq. in.  
 Engine: 15-29 Weight: 3-4 lb.  
 Material: Balsa  
 The RC world's basic trainer. Prefabrication of high degree. Docile performance for beginners. Fast Box-Lok construction. A must for beginners!



This model gives a performance that is docile enough for the beginner and exciting enough for the expert. A Kraftsmanship kit processed with AAMCO GOLD BALSA. This is one trainer that will not blow apart when it hits the ground!

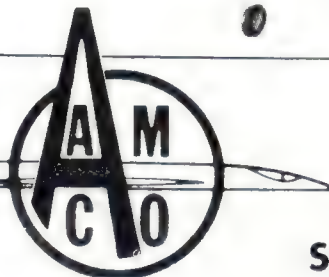
### SPECIFICATIONS:

#### ARC-8 BIG-H ray

Wingspan: 56 in. Area: 560 sq. in.  
 Engine: 19-45 Weight: 4-4 1/4 lbs.  
 Material: All balsa with Ply. where needed —

The BIG-H is the big brother to the popular H-RAY Basic Trainer and is designed as a Primary Trainer and will become the Standard in the 40 class of trainers. It is strong and can take the same rigors of flying as the infamous H-RAY. With our proven BOX-LOK method of construction, it is a cinch to build and has new features and looks that no other trainer in the world can boast of. As usual, it is all quality and engineering as only AAMCO can produce in a fine line of highly pre-fabricated R/C kits.

### RUGGED AND FULL OF FLIGHT



### SPECIFICATIONS:

#### ARC-9 QUIKRAY-500

Wingspan: 50+ in. Area: 503 sq. in.  
 Engine: 19-45 Weight: 3 1/2 lbs.  
 Material: All Balsa with Ply. where needed.  
 This baby is strong as a Bull but is light. This Baby will turn the Pylon tighter than anything you have seen and will not snap or stall out. It can be built complete and into the air from the kit box if covered with materials such as Super MonoKote in twelve to fifteen hours.

FAST IS WHAT SHE IS — AND DOCILE!

AND72001	ANDREWS ARC-1 S-RAY	34.95	26.25	27
AND72002	ANDREWS ARC-2 H-RAY	39.95	29.95	27
AND73005	ANDREWS ARC-5 TRAINERMASTER	52.95	39.70	26
AND73006	ANDREWS ARC-6 A-RAY	44.95	33.75	26

AND73008	ANDREWS ARC-8 BIG-H RAY	49.95	37.50	27
AND73009	ANDREWS ARC-9 QUIKRAY-500	47.95	35.95	27
AND73010	ANDREWS ARC-10 X-RAY	52.95	39.95	26
AND74003	ANDREWS ARC-3 AEROMASTER TOO	84.95	63.95	26
AND74004	ANDREWS ARC-4 SPORTMASTER	74.95	56.20	26



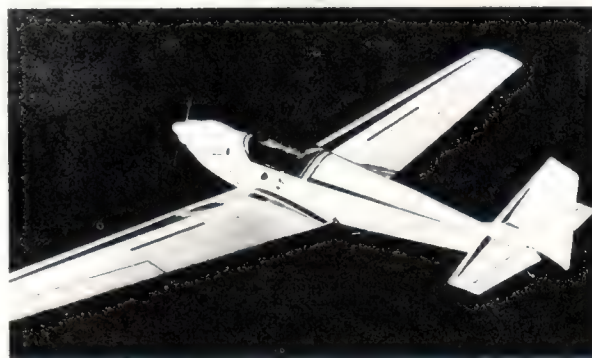
## ASTRO FLIGHT (AFI)



**ELECTRA FLY.** An electric powered sport flyer designed for backyard fun. Its simple construction and hands off stability make it a great trainer when powered by an Astro 05 electric or .049 glow motor. When powered by an Astro 10 its snappy performance will delight the sport flyer. This all balsa kit contains the motor mount and air scoops and other hardware for electric motor installation. Wing span 48 in., wing area 388 sq. in., for three channel radio, flying weight 32 to 45 ounces.



**THE PARTENAVIA P68 VICTOR.** The P68 Victor is one of the most exciting light twin aircraft of recent times. Its clean lines and aerodynamic efficiency make it a perfect subject for an electric mini twin. The model has amazing performance on the Astro 05 twin propulsion system and can perform loops, rolls and other aerobatic maneuvers with great realism, it always draws a crowd. Wing span 56 in., wing area 460 sq. in., three or four channel radio, flying weight 4 lbs.



**FOURNIER RF-4 Motorglider's** an eye catching scale model of the classic Volkswagen powered motor glider, made world famous by Mira Slova's transatlantic flight. This all balsa kit is designed to accept the astro 15 motor or a glo .15 cu. in. engine. Its simple construction and gentle flying habits suit the Sunday flyer, and its classic beauty makes it a perfect project for the serious scale builder. Wing span 72 in., wing area 600 sq. in., Astro 15 or Glow 15, three or four channel radio, flying weight 48 to 64 ounces.

## GOLDEN ERA CLASSIC THE PORTERFIELD COLLEGIATE



The Porterfield Collegiate is the ideal model for the sport scale flyer. Its gentle and forgiving nature make it perfect for the beginner, yet it is quite responsive in skilled hands. The all-balsa construction is quick and easy to build and produces a light and strong structure. A light 13 oz. per sq. ft. wing loading lets this plane ROG from a grass field in 10 to 15 feet and climb out steeply to avoid any obstacles. The same light wing loading lets this plane land on a dime and give nine cents change! Requires a 3 channel radio and an Astro 15 or Astro 25 motor. (a .15-.25 size engine may also be used.) 69.5" span.

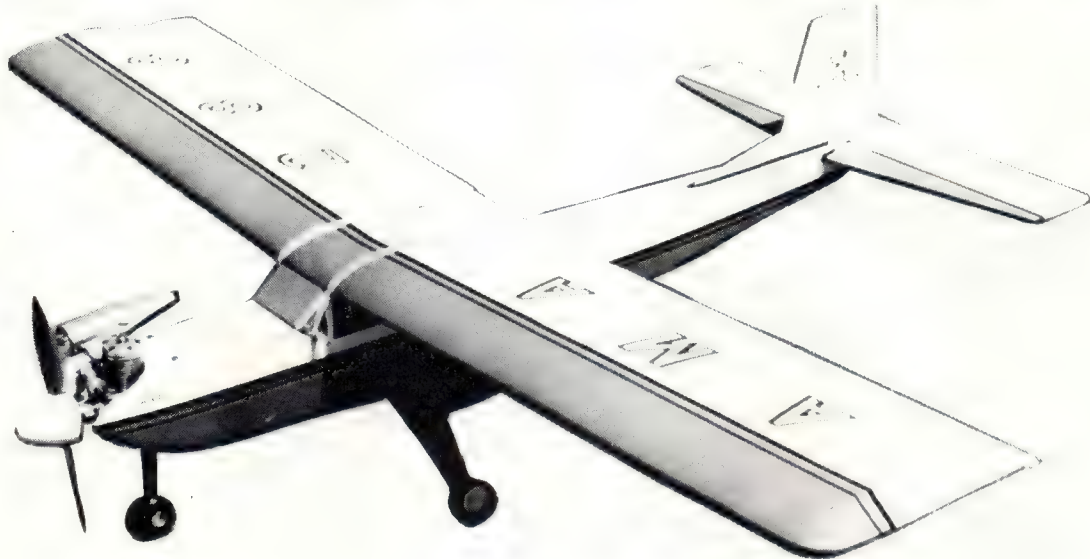
AFI71C03	AFI FOURNIER RF-4 MOTOR/GLIDER	54.95	39.95	28
AFI71C05	AFI ELECTRA-FLY MOTOR/GLIDER	24.95	19.00	28
AFI71008	AFI P-68 VICTOR TWIN	54.95	39.95	28
AFI72018	AFI 1018 PORTERFIELD COLLEGIATE	54.95	41.20	28



**BRIDI**

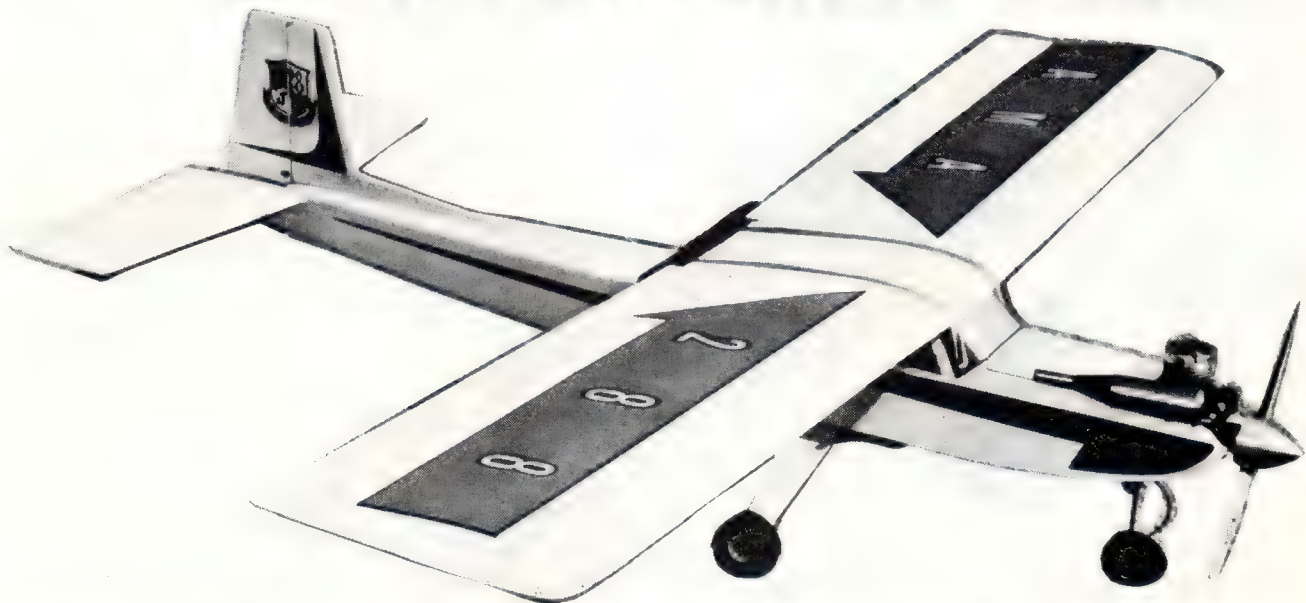
# RCM TRAINER .40

THE BRIDI FAMILY OF RCM TRAINERS OFFER WHAT YOU WANT IN A QUALITY R/C KIT



The trainer with large size and economical operation. Simple step-by-step instructions enable the beginner to build this kit quickly and correctly. Features all-balsa construction with machine cut parts, special hardware, building notes, and excellent plans. Requires a .29 -.40 size engine and a 4 channel radio. 50" span.

# RCM TRAINER .60



This big trainer will take the beginner from the first flight all the way through simple aerobatics. Its size enables it to penetrate the wind but it will also fly slow and docile. Features all-balsa construction with machine cut parts, special hardware, building notes, and excellent plans. Requires a .40 -.60 size engine and a 4 channel radio. 60" span.

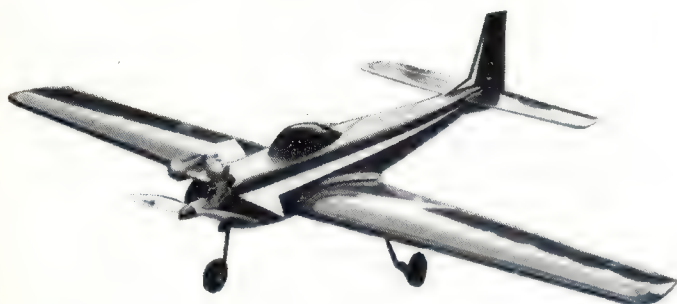
BR173C07 BRIDI RCM TRAINER 40  
BR174002 BRIDI RCM TRAINER 60

59.95 43.95 29  
73.95 53.95 29



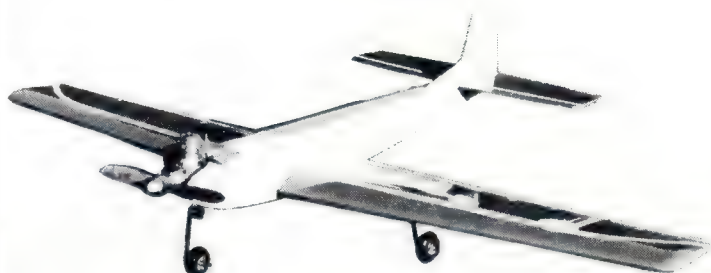
## BRIDI

### KAOS .60



The Kaos is great for a first .60 powered low wing airplane. In the air this plane is smooth, stable and predictable. Landings are slow and ground handling is enhanced by its wide track landing gear. This carefully packaged kit features all-balsa construction, machine cut parts, canopy, fixed landing gear, special hardware, building notes and full size plans. 59" span. Requires a .60 size engine and a 4 channel radio.

### SUN FLI 4-20



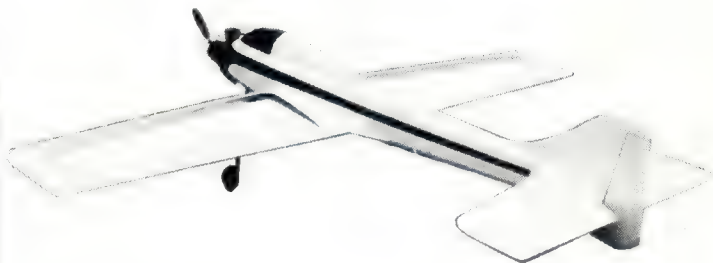
The economical Sun Fli 4-20 is ideal for fun flying or as a low wing trainer. This kit features high quality precision cut balsa parts, complete building instructions, full size plans, careful packaging and special hardware. Requires a .19 -.29 size engine and a 3-4 channel radio. 48 1/2" span. (Canopy is not included in this kit.)

### TWEEDY BIRD



This low wing pattern and general sport aircraft designed by Joe Bridi has all the aerobatic capabilities, excitement and wind penetration of its .60 size big brothers. Sleek looking, stable and smooth, this kit offers more flying from a .19 than ever thought possible. Requires a 4 channel radio and a .19 -.29 size engine. 48 1/2" span. This carefully packaged kit features epoxy-glass cowl for easy construction, engine mount, precision cut balsa parts, 15 page instruction manual, full size plans, main landing gear, steerable nose gear and special hardware.

### DIRTY BIRDY .40



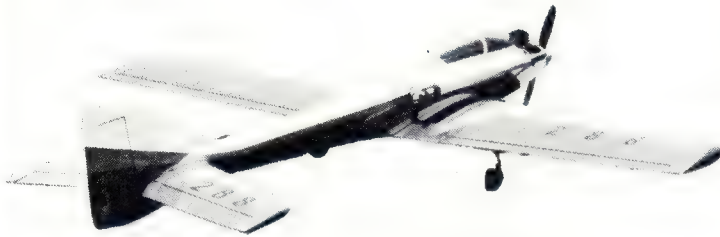
This "Junior" version of the contest winning Dirty Birdy .60 is just right for top level pattern competition. Requires an economical .40 size engine and a 4-5 channel radio. 58" span. This kit features all the characteristics of other fine Bridi kits including all-balsa construction with precision cut parts, formed epoxy-glass cowl, canopy, Bridi engine mount, full size plans, complete building instructions, careful packaging and special hardware. Will accept some brands of retracts.

BR174C03	BRIDI KACS 60	69.95	52.45	30
BR172C08	BRIDI SUN FLI 4-20	34.95	25.95	30
BR173C09	BRIDI TWEEDY BIRD	46.95	34.95	30
BR173C10	BRIDI DIRTY BIRDY 40 WOOD	66.95	49.95	30



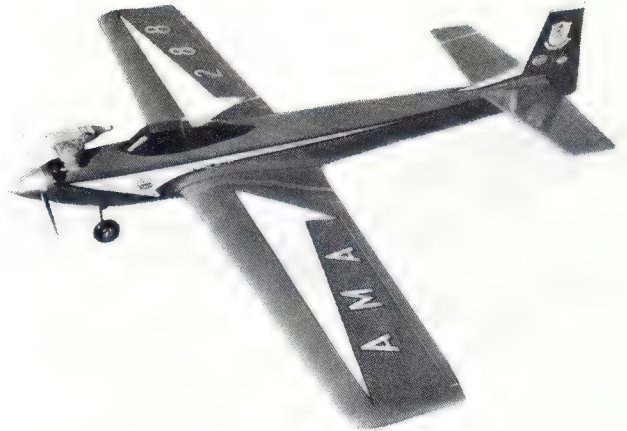
BRIDI

# U.F.O.



Definitely a kit for the experienced flyer! Design includes a swept back wing and stab, anhedral stab, longer fuselage and thick cross section wing. Features an epoxy-glass fuse and fin; foam wing and stab; high quality balsa sheeting material; engine mount and fixed gear. (It will accomodate most retracts.) Requires a .60 size engine and a 4-5 channel radio. 64½" span. Also included are complete building instructions, full size plans and special hardware.

# SUPER KAOS .60



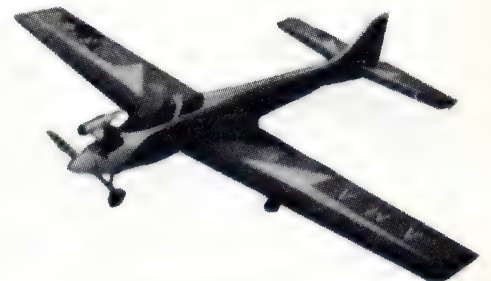
An excellent airplane for the novice pattern flyer, especially for those installing retracts for the first time. Solid, stable handling and smooth response are characteristic of this competitive plane. This all-balsa kit features machine cut parts, canopy, fixed landing gear, full size plans, complete building instructions, careful packaging and some hardware. Requires a .60 size engine and a 4-5 channel radio. 58½" span.

# DIRTY BIRDY .60

THE CONTEST WINNING BRIDIS



Dirty Birdy .60 Glass



Dirty Birdy .60 Wood

A world famous pattern aircraft that can take you to the highest levels of competition. This plane is designed to fly the AMA master, or the FAI patterns. It is fast and smooth in the air, yet it slows to a comfortable landing pace. The Dirty Birdy .60 is available in two versions: one with all-balsa construction, machine cut parts and a canopy; the other with epoxy-glass fuselage and fin, and balsa/foam wings and stab. Both kits have a 64" span and require a .60 size engine and a 4-5 channel radio.

BR174C06 BRIDI DIRTY BIRDY 60 GLASS  
BR174007 BRIDI DIRTY BIRDY 60 WOOD

139.95 105.95 31  
94.95 69.95 31

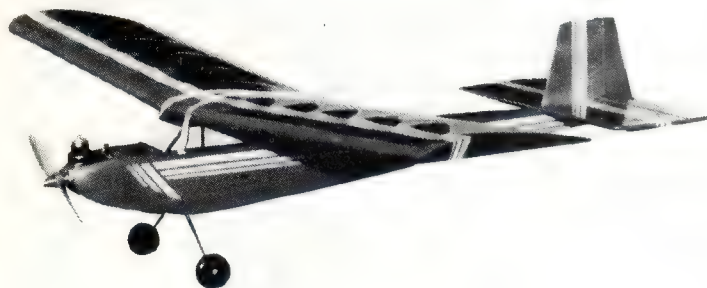
BR174C04 BRIDI SUPER KAOS 60  
BR174C11 BRIDI UFO FIBERGLASS

74.95 56.20 31  
146.95 111.95 31



THE BRIDI FAMILY OF RCM TRAINERS OFFER WHAT YOU WANT IN A QUALITY R/C KIT

### RCM TRAINER .05



Ideal for .049 schoolyard flying. This all-balsa kit features machine cut and sanded parts. 36 $\frac{1}{2}$ " span. Requires a .049 size engine and a 2 channel radio. Kit includes special hardware, Bridi engine mount, detailed plans and building instructions.

### RCM TRAINER .10



An inexpensive trainer for those who want their models to look like the real thing. An excellent flier and easy-to-transport plane. Kit quality is similar to their larger trainers with machine cut parts, special hardware, steerable nosegear, and building notes. Requires an .09 -.15 size engine and a 3 channel radio. 36 $\frac{1}{2}$ " span.

### RCM TRAINER .20



Another excellent trainer that has sturdy construction and offers economical fuel consumption. Stable and predictable in the air. Lands slowly and flies "A" pattern maneuvers. Features all-balsa construction, machine cut parts, special hardware, Bridi engine mount and complete building notes. Requires a .19 -.25 size engine and 3-4 channel radio. 45 $\frac{1}{2}$ " span.

### RCM BASIC TRAINER



A slow flying, stable aircraft that gives the beginner time to respond. Experienced flyers, who remember the fun of flying a trainer, should try this too. Can be flown at small flying sites. Requires a .15 -.19 size engine and 2-4 channel radio. 50" span. Features all-balsa construction with machine cut parts, complete plans and building notes.

BR172C01	BRIDI RCM BASIC TRAINER	44.95	33.50	32
BR172C02	BRIDI RCM TRAINER 20	42.95	31.95	32
BR172C06	BRIDI RCM TRAINER 5	26.95	20.20	32
BR172C07	BRIDI RCM TRAINER 10	29.95	22.45	32



BRIDI

# GLA BASIC TRAINER

THE BRIDI FAMILY OF RCM TRAINERS OFFER  
WHAT YOU WANT IN A QUALITY R/C KIT!



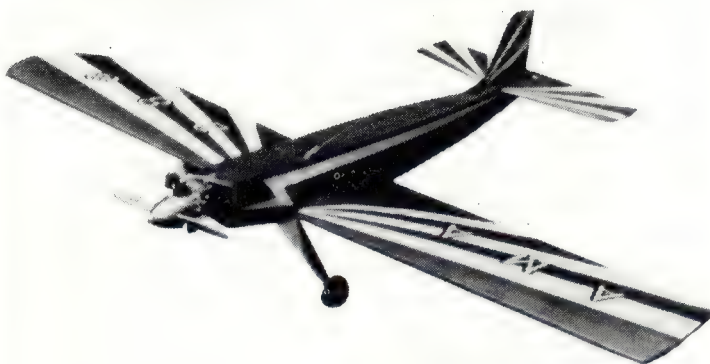
A stable-flying, mid-size trainer designed by Joe Bridi. This sturdy kit makes a great first plane. Features step-by-step construction; machine cut and sanded parts; photo-illustrated building notes; clear canopy; dural main landing gear; piano wire nose gear and special hardware. Requires a .25 -.45 size engine and a 3-4 channel radio. 59 1/4" span.

# QUICKEST 200



A "Club 200" racer with lots of racing excitement in a small package. This 1/2A pylon racer requires a TD .049 -.051 engine and a 2 channel radio. 31 1/4" span. Features Bridi engine mount, machine cut balsa parts, full size plans, complete building instructions, careful packaging and special hardware.

# 15-500 FOR SPORT PYLON FLYING



A competitive "Club 40" racer that is quick-to-build and exciting to race. Ideal for pylon or sport flying. Requires a .19 -.40 size engine and a 3-4 channel radio. 51" span. This kit features high quality, machine cut balsa parts; full size plans; complete building instructions; careful packaging and special hardware.

# QUICKEST 500



Designed for the sport or pylon flyer. This kit features quality balsa machined cut parts, full size plans, complete building instructions, Bridi glass-filled nylon engine mount and special hardware. Requires a .40 size engine and a 4 channel radio. 51 1/4" span.

BR173015	BRIDI QUICKEST 500	46.25	34.95	33
BR173500	BRIDI 15-500	46.95	34.95	33
BR173008	BRIDI GLA BASIC TRAINER	44.95	33.75	33
BR172000	BRIDI QUICKEST 200	26.95	20.20	33



## BRIDI

### AT-6 TEXAN



This is a model of the plane that trained all of the pilots turned out by the U.S. Army Air Force during most of World War II. Here you see it pictured as a sample of the AT-6 racing class. It is a dream to fly, and it's one of the most popular planes on the field. The kit features epoxy-glass fuselage, foam wing, special hardware, fixed gear, plans and building notes. It will accommodate most brands of retracts. It requires a .60 size engine and a 4-6 channel radio. 62" span.

### SUPER-FLI



This is a model of the aerobatic aircraft designed and built by Phil Kraft. Its clean lines signify the ultra modern design of current full size aerobatic aircraft. This kit features a balsa fuselage, fin, and stab; machine cut parts; foam wing and canopy; special hardware; plans and building notes. It requires a .60 size engine and 4 channel radio. 60½" span.

### T-28



This is a model of the plane used to train thousands of U.S. Air Force and Navy pilots. The particular design of the T-28 makes it especially suited for the first time scale builder. Large frontal area prevents an excessive flying speed; large dihedral angle gives excellent stability which is enhanced by the large tail surfaces. Plane features an epoxy-glass fuselage with foam wing, canopy, special hardware, plans and building notes. Plane will accommodate flaps and retracts. Kit requires a .60 size engine and a 4-6 channel radio. 68" span.

### DALOTEL



Designed by Hanno Prettner, this is an all-balsa, ¼ scale version of the fully aerobatic Dalotel DM 165. This model has plug-in wing panels and a bolt-on tail section for easy transportation. One unique feature of this aircraft is the tunnel provided in the bottom of the fuselage for the muffler pipe, thus hiding it from sight. Kit includes machine cut and nicely sanded parts, canopy material, special hardware, fixed landing gear, photo construction material and extensive building notes. Requires a .90 -1.25 size engine and a 5-6 channel radio. 84" span.

BR174140	BRIDI DALOTEL - .90 SIZE	159.95	121.55	34
BR174C17	BRIDI T-28 -GLASS	149.95	113.95	34
BR174C10	BRIDI AT-6 TEXAN FIBERGLASS	149.95	113.95	34
BR174C16	BRIDI KRAFT SUPER FLI	104.95	77.95	34

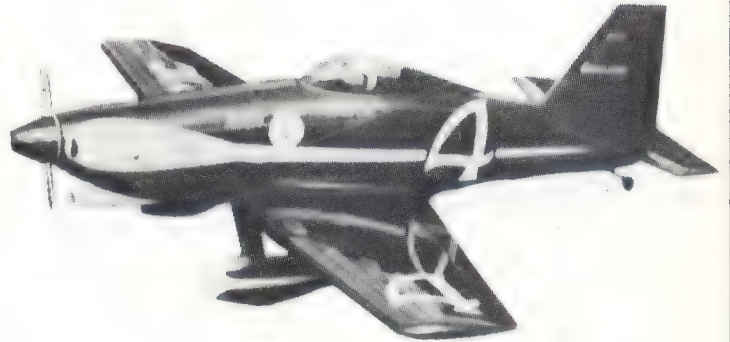


BRIDI

# F-7 TIGERCAT COSMIC WIND



Another fine twin from Bridi. This is a model of the Grumman F-7F Tigercat used by the U.S. Navy at the end of World War II. This plane should surprise the flyers at the field with its performance and handling. The kit features epoxy-glass fuselage, nacelles, and cowl; foam wing with sheeting material; special hardware; fixed gear; plans and building notes. It requires two .40 size engines and a 4-6 channel radio. It will accept retracts. 65" span. 775 sq. in. area.



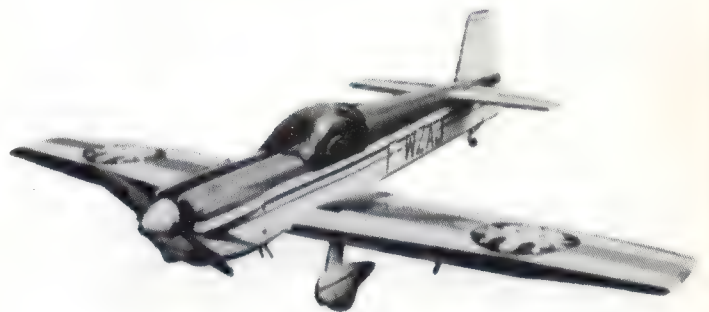
If you are interested in trying pylon racing but are afraid of the lightning quick speeds of the .40 size ships, then the Cosmic Wind is for you. A very complete kit which includes an epoxy-glass fuse, cheek cowl and wheel pants; foam wing, fin and stab; and all sheeting. The plane flies with a .60 size engine and requires a 4 channel radio. The Cosmic Wind has a 64" span with an 816 sq. in. area. This plane also has pattern capabilities.

## REARWIN SPEEDSTER



This classic beauty is an exceptionally smooth flying stand-off 1/4 scale aircraft. All parts are machine cut and sanded. Features all-balsa construction with precision machine cut and sanded parts, epoxy-glass cowl and wheel pants. Kit includes special hardware, detailed plans, building plans, building instructions and plug-in wing panels. Requires a .90 - 1.25 size engine and a 4 channel radio. 96 1/4" span.

## CAP 20L



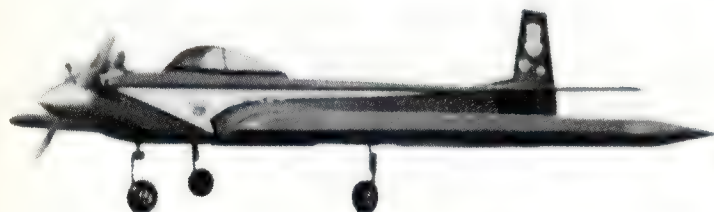
A fully aerobatic stand-off 1/4 scale aircraft. This super-deluxe kit includes landing gear; wheels; spinner; fuel tank; control cables for the rudder and elevator; epoxy-glass cowl and fuse and balsa sheeting. Requires a 1.5 - 2.4 size engine and a 4 channel radio (2 aileron servos are needed). 81" span. This model can be built with a one piece wing or plug together wing panels using materials provided in the kit.

BR174150	BRIDI CAP 20L - FIBERGLASS	249.95	189.95	35
BR174120	BRIDI REARWIN SPEEDSTER 1/4 SC	147.95	112.45	35
BR174100	BRIDI COSMIC WIND 1/4 SCL-GLAS	159.75	121.40	35
BR174C15	BRIDI F-7 TIGERCAT GLASS	224.95	169.95	35



## BRIDI

# SUPER KAOS .40



This aircraft makes an ideal first pattern plane. It has all the features of the Super Kaos .60, but is a smaller size. Uses an economical .40 size engine and a 4-5 channel radio. 52" span. Kit includes all-balsa construction, machine cut parts, canopy, fixed landing gear, special hardware, detailed instruction manual and full size building plans.

# DECEPTION



A quick flying aircraft designed for retracts and tuned pipe. Features balsa fuselage and fin with machine cut and sanded parts; foam wing and stab with sheeting; and fixed landing gear. Has epoxy-glass to accept rear exhaust tuned pipe engines. Requires a .60 size engine with tuned pipe and a 5 channel radio. 63" span. Comes with full size plans and detailed manual.

# SPITFIRE



A plane that will stand out at any flying field! This popular stand-off scale model of the famous Spitfire is best known for its exploits in "The Battle of Britain". Kit features epoxy-glass fuse with foam wing, special hardware, detailed plans and building notes. Requires a .60 size engine and a 4-6 channel radio. 62" span. This plane will easily accommodate retracts and flaps.

# CORBIN ACE



This 1/4 scale model of a popular home-built aircraft features all-balsa construction with precision cut and sanded parts; epoxy-glass cowl and wheel pants; special hardware; extensive plans and building notes. 78" span. Requires a .60 pump -.90 size engine and a 4 channel radio.

BR173C06	BRIDI SUPER KAOS .40	62.95	45.95	36
BR174018	BRIDI SPITFIRE -GLASS	134.95	101.20	36
BR174019	BRIDI DECEPTION	99.95	75.95	36
BR174110	BRIDI CORBIN ACE-1/4 SCALE	142.95	108.65	36



**BRIDI**

# P-51 MUSTANG



This stand-off scale model is for the scale buff who wants something different. The P-51 Mustang is a replica of the Rockwell International P-51 used by the world famous Bob Hoover in his spectacular aerobatic routine. This plane will do some astonishing maneuvers! Features epoxy-glass fuse and fin; foam wings; flaps; fixed gear (retracts can be installed); special hardware; plans; scale decals and building notes. 60" span. Requires a .60 size engine and a 4-6 channel radio.

# THE AEROCOMMANDER SHRIKE



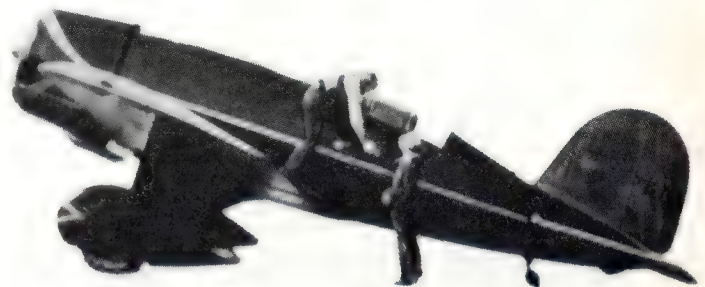
This stand-off scale model of Bob Hoover's Rockwell International Shrike is a fine flying twin of contest winning caliber. The prototype was a first place scale winner at the AMA Nats. This plane features an epoxy-glass fuse and nacelles; foam wing, stab and fin; 1/64" plywood wing sheeting; fixed gear; special hardware; plans and building notes. The plane will accommodate flaps and retracts (90 degree mains required). 79 1/2" span. Requires two .40 size engines and a 4-6 channel radio.

# CHIPMUNK



A stand-off scale model of the famous aerobatic show plane, the DeHaviland Chipmunk. This plane has trained thousands of Canadian pilots and has performed in many airshows in North America. This plane has good ground handling characteristics and is a pleasure to see in the air. Requires a .60 size engine and a 4 channel radio. 58" span. Features an epoxy-glass fuse and fin; foam wing; fixed gear; special hardware; Bridi motor mount; plans; and building notes.

# LOCKHEED SIRUS



A plane known for the exploits of many famous aviation explorers among them, Wiley Post and Roscoe Turner. This stand-off scale plane is a version of the Sirius that Lindberg flew for his transcontinental record setting attempt. Features an epoxy-glass fuse; fin and wheel pants; foam wing; built-up stab; fixed gear; special hardware; plans; and data sheet. 64" span. Requires a .60 size engine and a 4 channel radio.

BR174C08	BRIDI P-51 FIBERGLASS	149.95	113.95	37
BR174C12	BRIDI CHIPMUNK - FIBERGLASS	139.95	106.95	37
BR174C13	BRIDI LOCKHEED SIRUS GLASS	149.95	113.95	37
BR174C05	BRIDI AERC COMMANDER SHRIKE	199.95	151.95	37



## COX

# SPORTAVIA



Electric Sportavia



Fuel-Powered Sportavia

The Cox Sportavia comes in two ready-to-fly versions, fuel-powered and electric. The fuel-powered features great climbing ability in a big easy-to-fly sailplane. It has a magnificent 70" span with hardwood wing spars for great strength and long soaring flight ability. The fuel-powered version also comes complete with a factory installed .049 QRC engine with Snap Starter System and a muffler. The plane is ready for snap-installation of a 2 channel radio in 15-20 minutes. The electric powered Sportavia gives all the performance of the fuel powered version but is quieter. Quick rechargeable batteries (plug into standard auto lighter receptacle for 15 minutes) give more than three minutes of powered flight to soaring altitudes. The Electric Sportavia includes high-power electric motor with balanced armature for smooth power, 8-cell nickel-cadmium battery pack and quick charger cord. For more flying time, an extra power pack can be purchased. Just exchange the fully charged pack with the used one after each flight to minimize time between flights. (Extra charge cords can also be purchased if needed.) The electric version also requires a 2 channel radio.

# PIPER ARCHER II

An easy and satisfying way to enter the world of multi-channel radio controlled power flying! This big, powerful airplane is a detailed scale-model replica of the exciting Archer II from Piper. It features two channels for both elevator and rudder operation. Its giant 41" span is designed for smooth and easy control. Comes completely factory built, including a factory-installed .049 engine with muffler and Snap Starter System. Recommended for use with the Cox 8120 or 8020 radio.



## NEW

CCX93554	CCX 900554 BAT PK FOR SPORTAVA	29.95	25.45	38
CCX72402	CCX 402 RTF SPORTAVIA TRAINER	99.95	74.95	38
CCX72404	CCX 404 RTF ELECTRIC SPORTAVIA	149.95	112.95	38
CCX72405	CCX 405 RTF PIPER ARCHER	74.95	56.25	38



COX

# CESSNA CENTURION

Spend less time building and more time flying with this remarkable radio controlled plane from Cox. The Cessna Centurion is ready to fly in just twenty minutes. Precision molded with scale detail and finished with gleaming fuel-proof paint, this model requires no building or gluing. Just apply the pre-cut decorative stickers and assemble the model. It's ready for radio installation in just 15-20 minutes. Comes complete with the Cox QRC .049 engine and muffler already installed and all hardware furnished. Snap installation feature permits quick installation of the Cox/Sanwa 8020 or 8120 radios. This 36" wing span trainer is tame enough for the beginner to R/C flying, yet performs to challenge the expert.



# CUB TRAINER



The ready-to-fly Cub Trainer is designed for successful flying by the first-time R/C pilot. No gluing or building is required. This craft bridges the gap between control line flying and expensive R/C systems. Smooth, proportional flying permits flying in local schoolyards. Easy-to-handle 28" wing span. The rugged factory-built plane comes complete with factory-installed .020 engine and fully proportional radio control system. Radio system requires 10 AA 1½ volt alkaline batteries (not included).

# PIPER ARROW

3 CHANNEL CONTROL IN A  
READY-TO-FLY PLANE!

An exciting scale model for those who have mastered the other Cox ready-to-fly models. This .049 powered, ½A, ready-to-fly model features throttle and muffler for 3 channel flying. 41" span. Designed for use with the 8130 radio system, however, it can also be flown with rudder and elevator only, using the popular 8020 or 8120 system. Comes with an .049 R/C Bee engine.



CCX72400	CCX 9900 RTF CUB W/ENG & RADIO	133.25	86.95	39
CCX72401	CCX 401 RTF CESSNA CENTURION	79.95	59.95	39
CCX72403	CCX 403 RTF PIPER ARROW	78.95	58.95	39



COX

**HAWK**™



ELECTRIC POWER AND RADIO CONTROL IN A  
GREAT NEW AFFORDABLE PACKAGE



Comes Complete With

- Proportional Radio System
- Rechargeable Nicad Batteries
- Charging System With Safety Timer

The hand-launched Hawk's quiet electric power means it can be launched and flown in restricted areas. Unique easy-to-fly design with safety engineered rear-mounted electric motor makes the Hawk ideal for the first time RC pilot. The Hawk's powerful electric motor takes it up to altitude easily, and the big 39" wing-span gives the Hawk a graceful soaring flight befitting its name. The Hawk comes with everything—factory installed electric motor, factory-installed fully proportional radio, 3-pack rechargeable nicad battery system and automatic recharger with built-in timer. The Hawk can be fully recharged in 15 minutes! Transmitter requires 6 "AA" alkaline pencell batteries and the receiver requires 4 "AAA" alkaline pencell batteries. These batteries are not included.

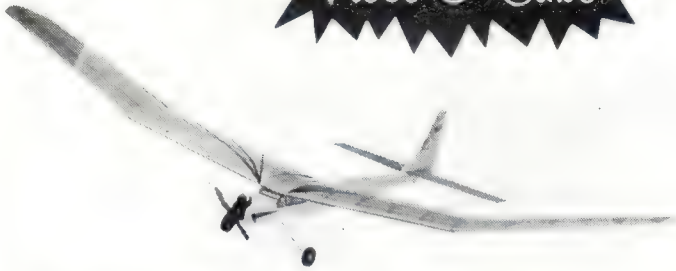
CCX72430 CCX 7300 RTF ELECTRIC HAWK

139.95 99.95 40



## CRAFT-AIR

### Piece O' Cake



This new slow flying trainer is simple to build and fly. Kit includes detailed instructions, step by step construction photos, clevises, horns, control rods, formed landing gear, wheel retainers, and even servo rails. 72" span; 573 sq. in. area; 24 oz. flying weight; 16 m.p.h. landing speed; 12% flat bottom air foil. Requires an .049 reed valve engine and a 2 channel radio.

**New!**

The Craft-Air Piece O' Cake is now available with covering, engine, fuel tank, wheels and everything else needed for completion of the kit (except a 2 channel radio). See page 17 for more information on this great kit.

CRA72C02	CRAFT-AIR #201 BUTTERFLY II	56.95	39.95	41
CRA72C03	CRAFT-AIR #202 PIECE O' CAKE	24.95	18.70	41
CRA72C04	C.A.#802 PIECE C'CAKE-COMplete	51.95	39.95	41

## Butterfly II

Wing Span	99 in.
Wing Area	916 sq. in.
Airfoil	Flat bottom (Craft-Air Windrifter)
Recommended Engine Size	.09 - 19
Recommended Radio	3 channel
Flying Weight	50 oz.
Wing Loading	7 1/2 oz./sq. ft.



PK-2

"A training airplane for would-be R/C flyers with aged reflexes and faint hearts." This is Bill Carter's introduction to his BUTTERFLY II in the R/C Modeler Magazine construction article.

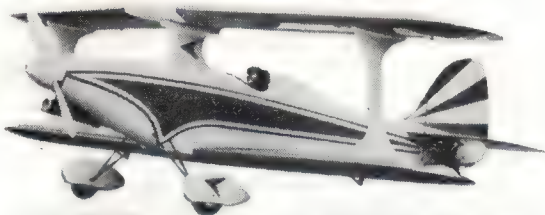
BUTTERFLY II is truly a gentle trainer; so docile the average beginner will experience the thrill of success on his first flight—even without assistance! BUTTERFLY II is large and light, with a very slow cruising speed. She is exceptionally crash-resistant, but if she does have a mishap—she is fast and easy to repair.

BUTTERFLY II is not *just* a gentle trainer sedately cruising around at quarter throttle. She also has a sporting side to her nature!

At full throttle, the performance is astonishing. The rate of climb must approach 600 ft/min. Rough calculation and observation both indicate that the top speed exceeds 50 mph. She will do a very majestic slow roll across the field and gain altitude in the process.

## CASS

### A BREAKTHROUGH IN PRECISION AEROBATICS! **PULSAR** The Ultimate Biplane



52" SPAN 48" LENGTH  
40-61 ENGINE

EXCLUSIVE "AUTO-LIGNMENT" WITH PRE-FAB  
CABANE PROVIDES PERFECT INCIDENCE SET-UP

• A PROVEN WINNER •  
CAPTURED 20 CONSECUTIVE FIRST  
PLACES  
INCLUDING PATTERN BI-PLANE AT THE  
NATS

GROOVY FOR FAI PATTERN-WILD FOR BARNSTORMING  
STABLE & FAST FOR BI-PLANE PYLON  
WIDEST SPEED RANGE OF ANY RC MODEL  
SLOW AND DOCILE FOR NOVICE FAST AND PRECISE FOR THE EXPERT

QUICK PRECISION BALSA, GLASS & FOAM ASS'Y.  
NUMEROUS PRE-CUT PARTS  
DETAILED PLANS & INSTRUCTIONS  
FIBER GLASS WHEEL PANTS, FINISHED WINGS  
AND WING KITS AVAILABLE

CAS74C10	CASS PULSAR BIPE
CAS74C20	CASS SKYBOLT

### CASS ENGINEERING **SUPER SKYBOLT**



WINGSPAN 58"  
LENGTH 48"  
ENGINE 60-91

SCALED DETAILED

WEIGHT 7 1/2-8 1/2 LBS.  
AREA 970 SQ. IN.  
PRE-FINISHED FUSELAGE & CABANE

EXCLUSIVE "AUTO-LIGNMENT"  
WITH PRE-FAB CABANE PROVIDES  
PERFECT INCIDENCE SET-UP

Winner of The SIG Bi-Plane Championships  
QUICK PRECISION BALSA, GLASS & FOAM ASS'Y.  
NUMEROUS PRE-CUT PARTS  
DETAILED PLANS & INSTRUCTIONS  
Fiber Glass Wheel Pants, Finished Wings & Wing Kits  
Available

The designers of the famed Pulsar Biplane now offer the same precise quality in producing the first glass, wood & foam Super Skybolt Kit. This precision kit is designed to get maximum static scale points and its impressive performance through a wide speed range, shows off its true scale characteristics. One piece fuselage plus pre-fab cabane make it a winner for stand-off scale or sport.

95.00	84.95	41
105.00	89.95	41



## MODEL AIRPLANE KITS

### CUSTOM MODEL PRODUCTS

# GENI

**FANTASTIC SPORT TRAINER**

The GENI is extremely stable for the novice, yet aerobatic enough for the advanced sport flier. If you're thinking of getting into R/C, try a GENI. It's pure magic.

4 Channel Sport Trainer  
.19-.35 Engine  
52" Wingspan  
530 Sq. In. Wing Area  
3.25 Pounds Ready-To-Fly



★ Fiberglass nose. Includes most accessories others don't: fuel tank, Kraft motor mount, links, hinges, push rods, etc.

★ Simplified structure, fewer parts gets you in the air faster.

★ Super strong balsa and Flite ply construction machine cut parts. Many pre glued parts.

★ Well organized building steps with isometric drawings to guide you.

CMP72C00 CUSTOM MODEL PRODUCTS GENI

54.95 43.95 42

## FLYLINE MODELS

### SCALE MODEL AIRCRAFT ...

The  
*Stearman* C3B



A big history maker before World War II. 35" wingspan. Requires an .049 engine. For radio control up to three channels. Kit 104.



TRAVEL AIR

The Travel Air 6000 is a typical classic from the "Golden Era" of U.S. civil aviation. In addition to rugged beauty, the aircraft was an excellent performer. The model has these same capabilities and is an ideal "school-yard scale" subject for .020 to .049 power with single or 2 channel light radio control. The 36" wingspan makes it possible to fly from small fields and typifies Flyline's usual high quality. Kit No. 115.

## ... FOR RADIO CONTROL ...

“GENERAL  
Aristocrat”



Probably one of the finest aircraft of the "Golden Era" and an excellent model for either light R/C or free flight. 36" wingspan. Requires an .020 to .049 size engine. Kit No. 105.

## ... AND FREE FLIGHT!



## FLYLINE MODELS

### SOME OF THE FINEST KITS OF THEIR TYPE!



The  
**BELLANCA**  
"Skyrocket"

A plane for pulse and small multi-channel radio control units. Has a wing span of 34½". Requires an .020 engine. Can be flown free flight on rubber. Kit No. 102.



the  
**FAIRCHILD**  
"22"

The Fairchild "22" has often been described as the most beautiful aircraft ever built. Our model is also worthy of such praise. It has a 48" wingspan and is designed for 3 or 4 channel radio control. When powered with engines in the .09 to .15 range it provides remarkably scale like performance. The light and simple balsa construction provides many hours of creative and educational entertainment and produces a model of which you can be very proud. Kit No. 107.



**GREAT LAKES**

The Great Lakes Trainer was one of many fine such aircraft that emerged during the 1930's. However, it soon distinguished itself because of its outstanding performance and beauty. Our model follows the same pattern as the prototype in that it has excellent performance, it is quite easy to fly, and is one of the most beautiful models available in the world. The model is designed to 1½" scale. It has a 40" wingspan. Requires a .15-.25 size engine and a 4 channel radio. The all up weight of the finished model is approximately 2¾ pounds. The structure is light and strong, made from balsa and spruce, and provides the modeler with hours of creative entertainment during construction as well as flying. It is a model that you can well be proud of, and one which is a consistent contest winner. Kit No. 114.



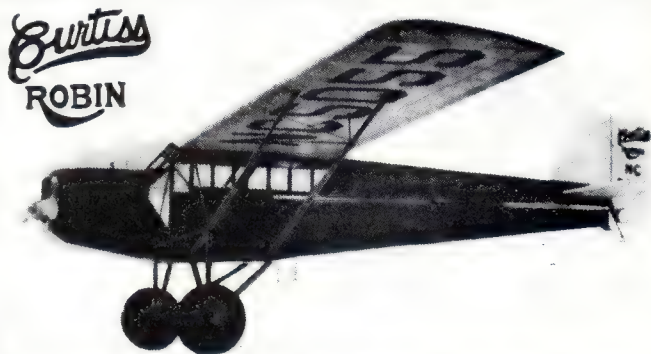
**KINNER**  
"Sportster"

The Kinner "Sportster" is truly representative of the "Golden Era", when it was used extensively as a sport trainer. Our beautiful model has a wing span of 39" and is accurate in every detail. It is designed to be flown with up to a 3 channel radio and uses an .049 size engine. Kit No. 106.

## BÜCKER JUNGMEISTER



This beautiful, lightweight, 1½"-scale model has a wingspan of 33" and is well suited for 2-4 channel radio control. Requires an .049 engine. It made its debut by winning first in "schoolyard scale" at the Bealtown Scale Classic in 1978. Kit No. 116.



**Curtiss**  
**ROBIN**

A magnificent rendition of an all-time favorite aircraft. Ron Roberti won 2nd place at the 1976 Nationals free scale competition with a model built from this kit. This model may also be flown with electric power. 41" span. Requires an .049 engine and up to a 3 channel radio. Kit No. 103.

FLY72102	FLYLINE 102 BELLANCA SKYROCKET	15.95	13.55	43
FLY72103	FLYLINE 103 CURTISS ROBIN	15.95	13.55	43
FLY72104	FLYLINE 104 STEARMAN C3B	15.95	13.55	42
FLY72105	FLYLINE 105 GENERAL ARISTOCRAT	15.95	13.55	42
FLY72106	FLYLINE 106 KINNER SPORTSTER	15.95	13.55	43
FLY72107	FLYLINE 107 FAIRCHILD "22"	30.95	24.75	43
FLY72114	FLYLINE 114 GREAT LAKES TRAINER	34.95	27.95	43
FLY72115	FLYLINE 115 TRAVEL AIR 6000	15.95	13.55	42
FLY72116	FLYLINE 116 BUCKER JUNGMEISTER	19.95	16.95	43



# ESTES

# SKYMASTER

## ELECTRIC TRAINER No. 4048

Wing Span 48" Wing Area 436 sq. in. Length 34"  
Molded lightweight "SkyLite" foam wing and tail with rigid vinyl, thermally bonded skin have been tested at 10G at 3.5 lb. airplane weight. Features vacuformed, hi-impact, ABS plastic fuselage. No finishing required, simply add trim. Can be built and flown in one weekend. All control surfaces are factory installed. Complete instructions for fast, easy construction plus hardware, push rods and landing gear are included. Superb flying qualities, very smooth and precise. Very docile and forgiving for the novice, yet rugged and responsive for sport flier. Kit complete except for wheels, radio, glue and motor (Estes SkyMax Electric Motor No. 4024 is recommended).

SEE PAGE 132 FOR MORE ESTES ELECTRONIC EQUIPMENT.

## SKYMASTER FLIGHT SYSTEM 2000

Complete SkyMaster Electric Trainer Kit (No. 4048) with SkyMaster E.M. System 2000 (No. 4034). Features external charging receptacles, so disassembly of airplane is not needed to recharge batteries.

No. 4068

## SKYMAX E.M. SYSTEM 2000 (ELECTRIC MOTOR) No. 4034

SkyMax electric motor (No. 4024), plus SkyWire wiring harness (No. 4085), and SkyPak 1200 MAH battery pack (No. 4098). Weight of complete system is 675 g (23 oz.). (This system intended for use in aircraft with up to 4 minute powered flights. For use in models with desired flight time of less than 4 minutes, order motor, wiring harness and battery pack separately.)



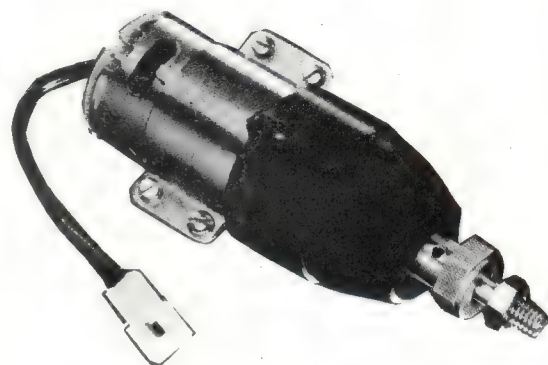
## SKYPAKS FOR SKYMAX ELECTRIC MOTOR

Skypak 600 MAH Battery Pack—No. 4095

1½-2 minutes motor run. Wt.—230 g

Skypak 1200 MAH Battery Pack—No. 4098

3½-4 minutes motor run. Wt.—385 g



## SKYMAX ELECTRIC MOTOR No. 4024

For use in Estes SkyMaster and similar sport models of up to 4 lbs. flying weight and as a power assist for "standard" and "unlimited" class sailplanes of up to 1000 sq. in. wing area. The SkyMax develops from 20 to 32 ounces of thrust with props ranging from 12" x 5" to 14" x 8." (This is approx. the same thrust as an average .15 R/C glow engine with an 8" x 4" prop.) Weight of SkyMax motor with 3:1 Estaloy gear head is 150 g. To be used with Estes SkyPak battery packs: Prod. No. 4095 . . . 600 MAH 1½-2 min. motor run. Wt. 230 g. Prod. No. 4098 . . . 1200 MAH 3½-4 min. motor run. Wt. 385 g.

## SKYWIRE Wiring Harness—No. 4085

Universal wiring harness with on/off toggle switch, fuse holder, fuse, recharge plug, battery connector and lead wires for use with Estes SkyMite and SkyMax electric motor system.

## SKYCHARGER Quick-Charge Battery Charger—No. 4087

Universal, adjustable, charger for quick-charging, discharging and recharging all Estes SkyPak nicad battery packs from a 12 volt car or motorcycle battery.

EST09034	ESTES 4034 SKYMAX 2000	95.00	68.95	44	EST19095	ESTES 4095 SKYPAK 600MA	40.00	30.95	44
EST09024	ESTES 4024 SKYMAX	37.00	29.60	44	EST19098	ESTES 4098 SKYPAK 1200MA	50.00	38.75	44
EST19085	ESTES 4085 SKYWIRE	10.00	8.95	44	EST172048	ESTES 4048 SKYMASTER TRAINER	75.00	55.95	44
EST19087	ESTES 4087 SKYCHARGER	40.00	29.95	44	EST172068	ESTES 4068 SKYMASTER 2000	155.00	107.95	44



**FLITECRAFT**

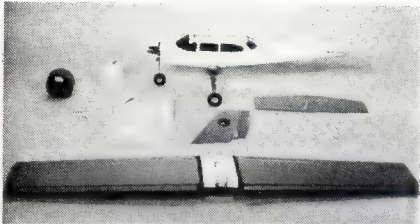


**NEW DIMENSION IN R.C. FLYING  
READY-TO-FLY- ... TODAY**

# RTF CARDINAL SPORT



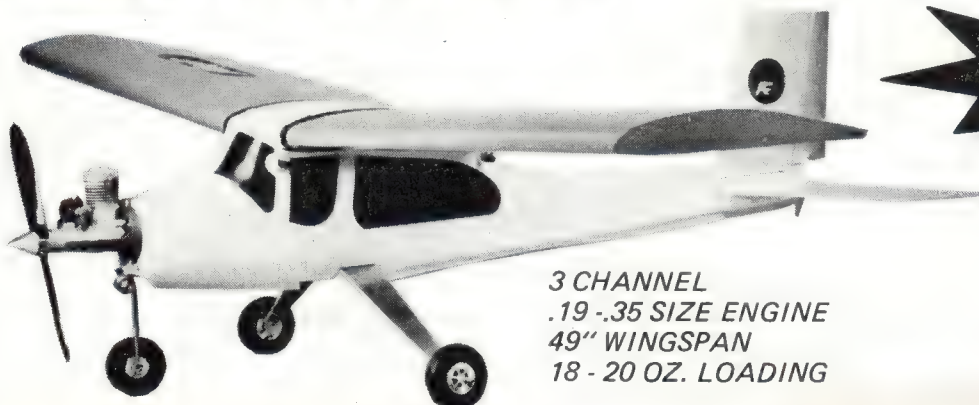
**4 CHANNEL  
.25 -.40 SIZE ENGINE  
53" WINGSPAN  
20 - 22 OZ. LOADING**



It's easy to see from this picture why assembly time is less than 30 minutes.

The Cardinal Sport and the Wilga Trainer are good news for the beginner to intermediate flyer who want an airplane that's nearly indestructible! These kits are so strong that Flitecraft ads picture people actually standing on the wings and fuselage with no damage to these pieces. The fuselage is made of extremely strong RSTP plastic and features already joined foam wings that are balsa sheeted and covered with Solarfilm. Balsa tail surfaces are also hinged and covered with Solarfilm. Also included are pushrods, Dubro wheels and connectors, landing gear, and a foam donut to hold the fuel tank and battery. A Kraft engine mount is already installed. Because these models are designed to have their adjustable servo rails and control surfaces attached with super glues like Hot Stuff and Jet, the assembly time is 30 minutes. The 4 ch. Cardinal Sport requires a .25 -.40 size engine. The 3 ch. Wilga Trainer requires a .19 -.35 size engine. These kits should be seen to appreciate their beauty and durability.

# RTF WILGA TRAINER

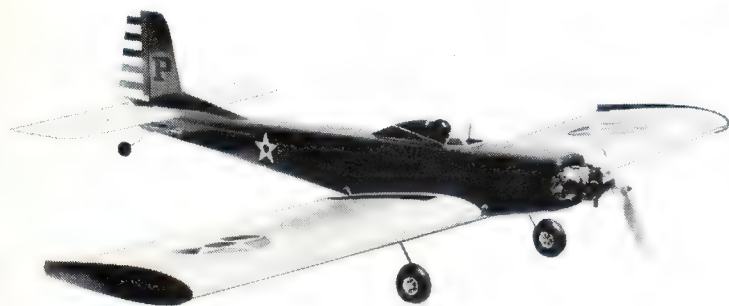


**3 CHANNEL  
.19 -.35 SIZE ENGINE  
49" WINGSPAN  
18 - 20 OZ. LOADING**

FLT72100	FLITECRAFT RTF WILGA TRAINER	119.95	86.95	45
FLT73100	FLITECRAFT RTF CARDINAL SPORT	129.95	94.95	45



## FLITE LINE



### SKOOTER II

Over 10,000 happy owners can tell you about this quick building low wing. A great one design racing plane or fun fly hot rod.

Comes with 12% wing for Quickie 500 racing.

wing span - 48"  
weight - 3½ lb

wing area - 480"  
engine - .19 to .40

FLL72100 FLITE LINE SKOOTER II  
FLL72200 FLITE LINE EZ FLI



### E Z FLI

A simple, good looking cabin model. Great aileron trainer or sport model that can be flown with 3 or 4 channel radios. E Z to build with foam wing, balsa and ply fuselage.

wing span - 51"  
weight 3¾ lbs.

wing area - 510"  
engine - .19 to .40

34.95 27.95 46  
34.95 27.95 46

## GOLDBERG

*Thrill to the performance of an era gone by*

*with Bob Rich's*

# Curtis Hawk P6E



Wing Span ..... 41½ in. top  
..... 35 in. bottom  
Wing Area ..... 419 sq. in.  
Overall Length ..... 29 in.  
Engine Size ..... .19 to .35  
3 or 4 Channel Rudder, Elevator,  
Throttle, Ailerons optional.

Curtiss Hawk P-6E — to most modelers it's the classic biplane of all time! It has the lines, the color, and the markings to make it the most striking model on the field! And our semi-scale P-6E builds quickly with many pre-formed parts.

★ Molded foam wings

★ Vac-formed turtle-deck

★ Vac-formed cowl & wheel pants

★ Three large decal sheets

★ Pre-bent wire cabane parts

★ Heavy duty maingear

★ Full-Size Plan, plus Photo-Construction booklet

★ Complete 3-channel hardware including new snap-on strut hold-downs, etc.

## A Show Stopper Where Ever You Go!



## GOLDBERG

# RADIO CONTROL MODELS THAT ARE GREAT TO FLY!

All Carl Goldberg Models Come With Full Size Plans, Illustrated step by step, and Folder on How to Set Up and Operate R/C Models.

## THE FLYING FALCONS

More Falcons have been built and flown in the past 10 years than any other R/C. For values and features in a functional, rugged airplane, your best bet is a Falcon. Every design element engineered for simplicity and fast-building.

### FEATURES:

All Deluxe, with top quality fittings, Coil-sprung nose gear . . . formed main gear.  
Shaped and notched leading and trailing edges.

Cleanly die-cut ribs, fuse sides, formers, etc.  
New simple "Symmet-TRU" wing construction.

SEE THE NEXT TWO PAGES FOR THE FALCON 56 AND SKYLARK 56 MARK II.



### SR. FALCON

The Standard Big Trainer. For 4 Channel Proportional. Span 69". For .35 to .60 Engines.



SKYLANE 62

Tough, Roomy Cabin and Front End. For 2 to 4 Channel Proportional. Steerable Nose Gear. See-through cabin, with die-cut plywood cabin sides. Span 62". Weight 4½-5 Lbs. For .35 to .45 Engines.



1/2A SKYLANE



For Single or 2 Channel, Pulse or Digital. Span 42". Weight 22 oz. For .049 to .10 Engines.

### Junior FALCON

The Small Trainer. For Single or 2 Channel, Pulse or Digital. Span 37". For .049 Engines.



### JR. SKYLARK

For Single or 2 Channel. Pulse or Digital. Span 37". Weight 18 oz. For .049 Engines.



### RANGER 42

Takes Single to Small 4 Channel Proportional Radio, Molded Fuselage, One Piece Molded Wing, Stabilizer and Vertical Fin. Also Free Flight. Span 42". Weight 26 oz. For .049-.10 Engines.



KIT G25

43" SPAN  
29½" LENGTH  
390 sq. in. AREA

THE ALL NEW CONTROL LINE

## FLYING TIGER

## P-40 TUNTER

FOR .19 TO .35 ENGINES

PLANS ALSO SHOW R/C VERSION.  
FOR 2.3 CHAN. RADIO. 15-19 ENGINES

See the listing below for replacement wings.

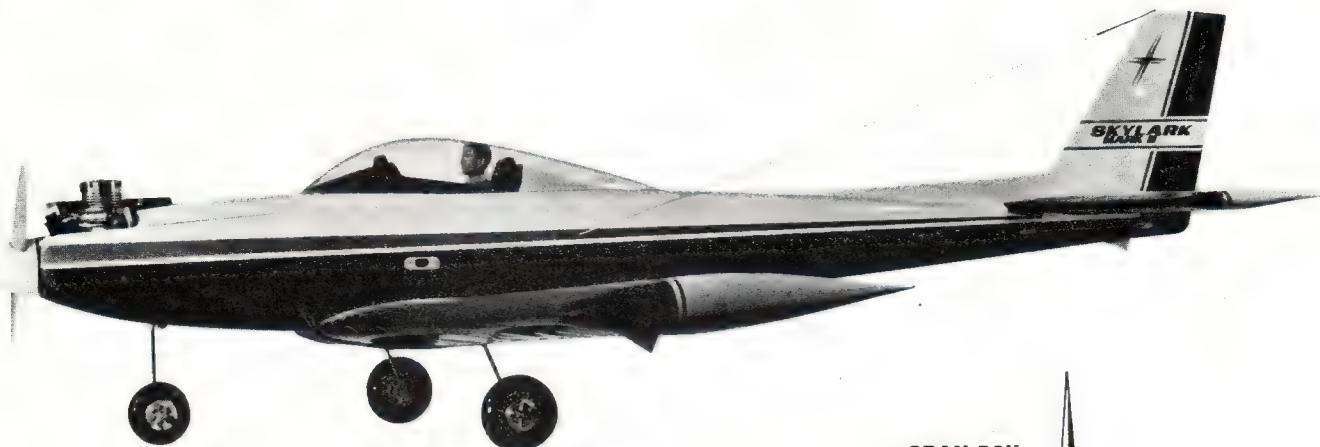
GBG72C01	GOLDBERG	PRC-1 RANGER 42 ARF	32.95	24.70	47
GBG72C05	GOLDBERG	G15 FALCON 56 MKII	54.95	38.45	49
GBG72C18	GOLDBERG	G18 1/2 A JR. FALCON	17.95	14.80	47
GBG72C21	GOLDBERG	G21 SKYLARK 56 MKII	56.95	39.95	48
GBG72C22	GOLDBERG	G22 JUNIOR SKYLARK	18.95	15.65	47
GBG72C23	GOLDBERG	G23 1/2 A JR. SKYLANE	19.95	16.45	47
GBG72C25	GOLDBERG	G25 P-40	19.95	16.45	47
GBG72C30	GOLDBERG	P&E CURTISS HAWK	52.95	39.95	46
GBG73C27	GOLDBERG	G27 SKYLANE 62	74.95	52.95	47
GBG74C16	GOLDBERG	G16 SENIOR FALCON	74.95	52.95	47
GBG75C15	GOLDBERG	G15W WING FALCON MKII	21.95	18.65	47
GBG75C16	GOLDBERG	G16W WING SR. FALCON	32.95	27.95	47
GBG75C21	GOLDBERG	G21W WING SKYLARK MKII	23.95	20.35	47
GBG75C27	GOLDBERG	G27W WING SKYLANE 62	32.95	27.95	47



**GOLDBERG**



*Announcing the NEW*  
**SKYLARK 56**  
**MARK II**



SPAN 56"  
 LENGTH 47½"  
 AREA 558" SQ. IN.  
 WEIGHT 4½ TO 5 LBS.  
 FOR .30 TO .40 ENGINES

With an eye for beauty, the Skylark Mark II has undergone extensive changes to not only simplify, but to improve its construction, strength and overall flight performance. If you want a sharp, fun to fly sport airplane with pattern capabilities, here's why the Skylark Mark II is the one for you!

- |            |  |            |  |
|------------|--|------------|--|
| <b>NEW</b> | Ailerons and complete aileron hardware. Can be easily built for 4-channel operation. | <b>NEW</b> | Strengthened and simplified fuselage construction.   |
| <b>NEW</b> | Wider and longer front end to take larger engines and tanks.                         | <b>NEW</b> | Redesigned stronger wing with new symmetrical airfoil.   |
| <b>NEW</b> | Heavy-duty landing gear and steerable nose gear.                                     | <b>NEW</b> | Greatly improved plans with large well-organized building steps to guide the modeler and answer his questions. |



KIT G 21



GOLDBERG

# FALCON 56 MARK II



SPAN 56"  
LENGTH 47½"  
AREA 558" SQ. IN.  
WEIGHT 3¾ TO 4¾ LBS.  
FOR .19 TO .40 ENGINES

More people have successfully learned to fly RC on the Falcon 56 than any other trainer in history. Now the MARK II introduces many new features, making the all-time favorite even better! If you're thinking of getting into the great sport of Radio Control Modeling, here's why the MARK II is the one for you!

**NEW** Ailerons and complete aileron hardware. Can be easily built for either 3-channel or 4-channel operation.

**NEW** Wider and longer front end to take larger engines and tanks.

**NEW** Heavy-duty landing gear and steerable nosegear.

**NEW** Strengthened and simplified fuselage construction.

**NEW** Stronger wing - now takes more than 10 G's!

**NEW** Greatly improved plans, twice the area, large, well organized building steps to guide the novice and answer his questions.



SEE PAGE 47 FOR STOCK NUMBERS AND PRICES  
FOR FALCON 56 & SKYLARK 56.



RHETT MILLER

At the age of 11, Rhett Miller saw a model he thought was flying on extremely long lines. It turned out to be an RC model performing its fascinating maneuvers! So Rhett, like many others, started RC with a Falcon 56. With the help of his parents and flying friends — including the great Jim Kirkland — he progressed at amazing speed. Soon he was into precision aerobatics. Finally, at the age of 15, he did the unbelievable. At the 1973 National Championships, he beat the toughest competition in the U.S., and took 1st place! Congratulations, Rhett, on an extraordinary achievement!



## GEE BEE

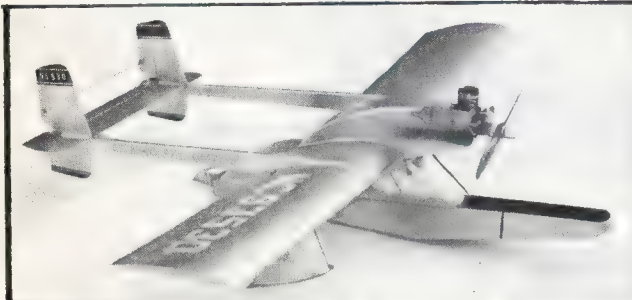
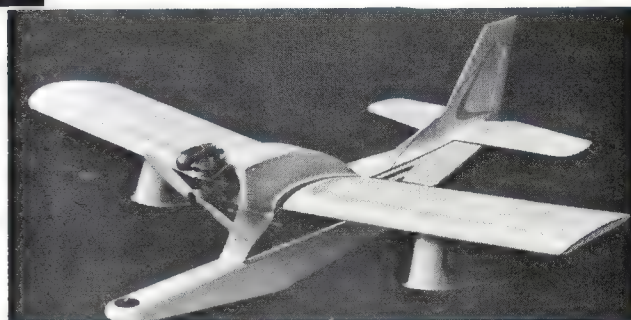
### 'Mallard'

The greatest little flying boat of them all - updated with a new rudder and tip floats to make it docile for the novice and a ball for the old-timer - amphibious - finished hull.

Span: 50" area 437

Power: 25 to 35

3 CH.



### The Islander

MARK II

A bit of nostalgia for the old time airplane enthusiast - beautiful water performance and proven stability. Also amphibious - finished hull.

Span: 50" area 437

Power: 25 to 35

3 CH.

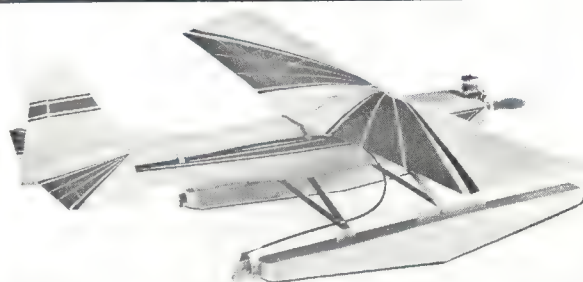
### SEA HAWK

The ideal model for the twin float flyer - completely finished floats in kit - model builds fast and is a great flyer - may easily be converted for land flying.

Span: 50" area 437

Power: 20 to 40

4 CH.



### DREAMER

This distinctive biplane has a swept top wing and dihedral bottom wing. The kit includes all special hardware, prebent cabane struts, wheel pants with exclusive "Pant-Lok", and machine cut parts. An outstanding hi-performance sport biplane.

38½" Span  
4½ - 5½ Pounds

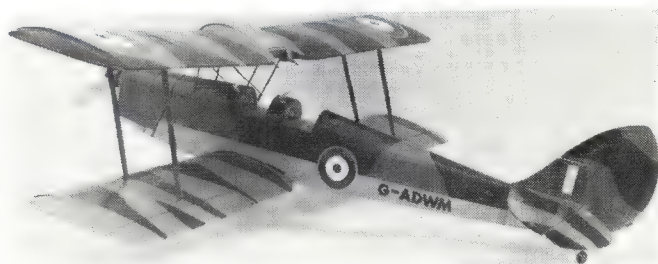
.40 -.45 Power  
4 Channels

### TIGER MOTH

This all balsa vintage biplane offers flying fun with a .30 engine. The kit features all special hardware, prebent cabane struts, and easy construction.

45" Span  
4 - 4½ Pounds

.25 -.35 Power  
4 Channels



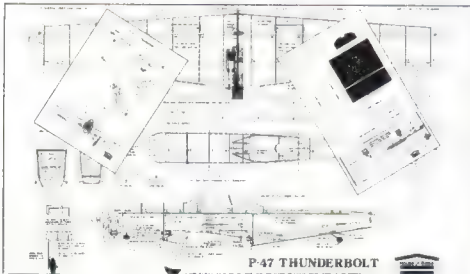
GBE73C00	GEE BEE	DREAMER BIPLANE
GBF73C10	GEE BEE	RC-01 MALLARD SEAPLANE
GBE73C20	GEE BEE	RC-02 ISLANDER
GBF73C30	GEE BEE	RC-03 SEA HAWK
GBE73C40	GEE BEE	RC-04 TIGER MOTHS BIPE

62.50	49.95	50
46.95	37.50	50
49.95	39.95	50
49.95	39.95	50
52.50	41.95	50

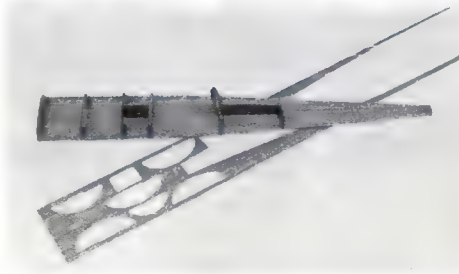


HOUSE OF BALSA

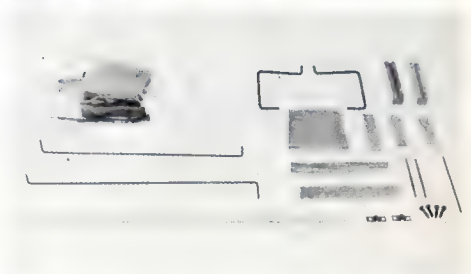
# Take a close look at 1/2 A Scale.



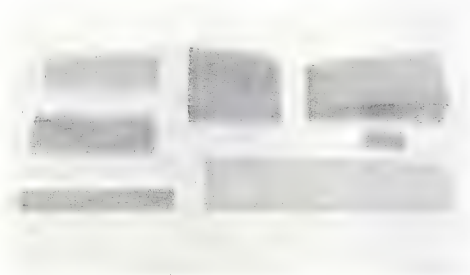
Full size plans, rolled for convenience  
3-views, Templates and Decals.



Lightweight formed fuselage top and  
balsa substructure



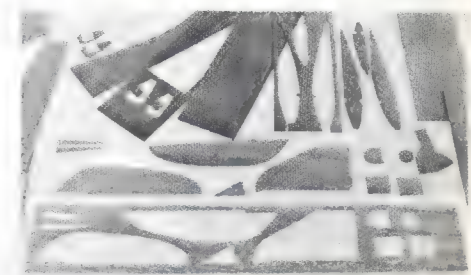
Pre-bagged hardware and preformed  
wire parts.



Balsa blocks, cut to size and  
pre-shaped.



Machine cut fuselage sides, wing  
sheeting and sticks.



Die-cut parts. So clean cut, they  
actually fall out.



(Typical construction sequence)

All of our kits have complete detailed  
instr. with over 100 construction  
photos, including finishing and radio  
installation.

# and how to build it.



SEE NEXT  
TWO PAGES  
FOR HOUSE  
OF BALSA  
KIT LINE



## HOUSE OF BALSA

### STAND-OFF SCALE .29 TO .40



- P-51D MUSTANG Sport, stand-off scale, .29 to .40 power** • Wing span 49 in. • Wing area 425 sq. in.  
 • Fuselage length 39 in. • Weight  $4\frac{1}{4}$  to  $4\frac{3}{4}$  lbs. • Wing loading at  $4\frac{1}{4}$  lbs. = 23 oz./sq. ft.  
 • Engine .29 to .40 (Sport .35 to .40 recommended)  
 • **P51 D Mustang F.G.** — Same as above except contains epoxy class fuselage



- PIETENPOL (PETE 'N' PAUL)** A sport and stand-off scale trainer • Wing span 65 in., area 715 sq. in.  
 • Flying weight 4.5 to 5.5 lbs. • Wing loading at 4.5 lbs. = 14.5 oz./sq. ft.; at 5.5 lbs. = 17.7 oz./sq. ft.  
 • Engine .29 to .40 cu. in. • 2-3 Channel



- PITTS S2A** Sport stand-off scale .29 to .40 power • Wing span 41" top 39" bottom  
 • Wing area 580 sq. in. • Fuselage length 37" • Weight  $4\frac{1}{2}$  to 6 lbs.  
 • Wing loading 18 to 24 oz./sq. ft. • Engine .29 to .40 (Sport .35 to .40 recommended)



**COMING  
SOON!**

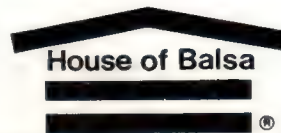
#### P-51B MUSTANG

This is the "B" version of this fighter. Same specs as those on the P-51D's at left except for "B" version. Comes with epoxyglass fuselage.



**COMING  
SOON!**

A .29 -.40 size version of the Beechcraft Bonanza. No details as to specifications or materials at press time. Watch for details in current House of Balsa magazine ads for all the details.





## HOUSE OF BALSA

### 1/2-A, SPORT, STAND-OFF SCALE, FOR 2 CHANNEL RADIO



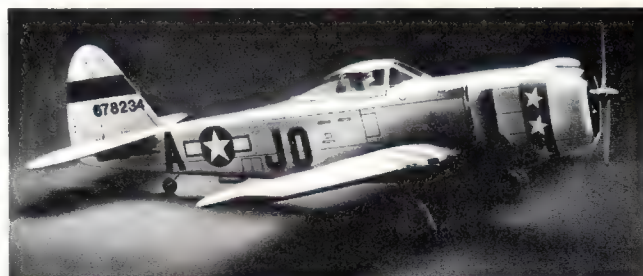
**P-39 AIRACOBRA** • Span 36 in. • Area 216 sq. in. • Length 28.5 in.  
• Weight 22-28 oz. • Engine TD .049  
• Wing loading 14.6-18.6 oz./sq. ft.



**FOCKE-WULF FW 190-A3** • Span 36 in. • Area 216 sq. in.  
• Length 28.5 in. • Weight 22-28 oz. • Engine TD .049  
• Wing loading 14.6-18.6 oz./sq. ft.



**PIETENPOL SKY SCOUT (1/2-A 'PETE')** • Span 42 in.  
• Area 284 sq. in. • Length 26 in. • Weight 22-27 oz.  
• Engine QRC .049 • Wing loading 11-14 oz./sq. ft.



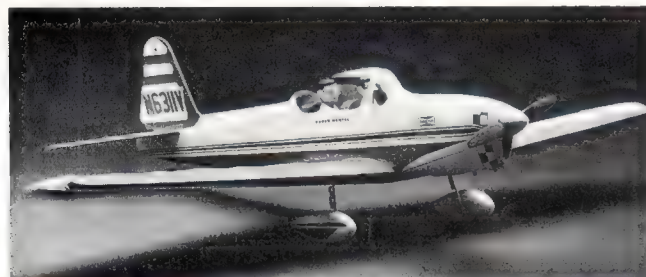
**P-47 THUNDERBOLT** • Span 36 in. • Area 216 sq. in.  
• Length 28.5 in. • Weight 22-28 oz. • Engine TD .049  
• Wing loading 14.6-18.6 oz./sq. ft.



**ME-109E** • Span 36 in. • Area 216 sq. in. • Length 28.5 in.  
• Weight 22-28 oz. • Engine TD .049  
• Wing loading 14.6-18.6 oz./sq. ft.



**P-51D MUSTANG** • Span 36 in. • Area 216 sq. in. • Length 28.5 in.  
• Weight 22-28 oz. • Engine TD .049  
• Wing loading 14.6-18.6 oz./sq. ft.



**CHIPMUNK** • Span 36 in. • Area 216 sq. in. • Length 28.5 in.  
• Weight 22-28 oz. • Engine TD .049  
• Wing loading 14.6-18.6 oz./sq. ft.



**BEECHCRAFT BONANZA** • Span 36 in. • Area 216 sq. in.  
• Length 28.5 in. • Weight 22-28 oz. • Engine TD .049  
• Wing loading 14.6-18.6 oz./sq. ft.

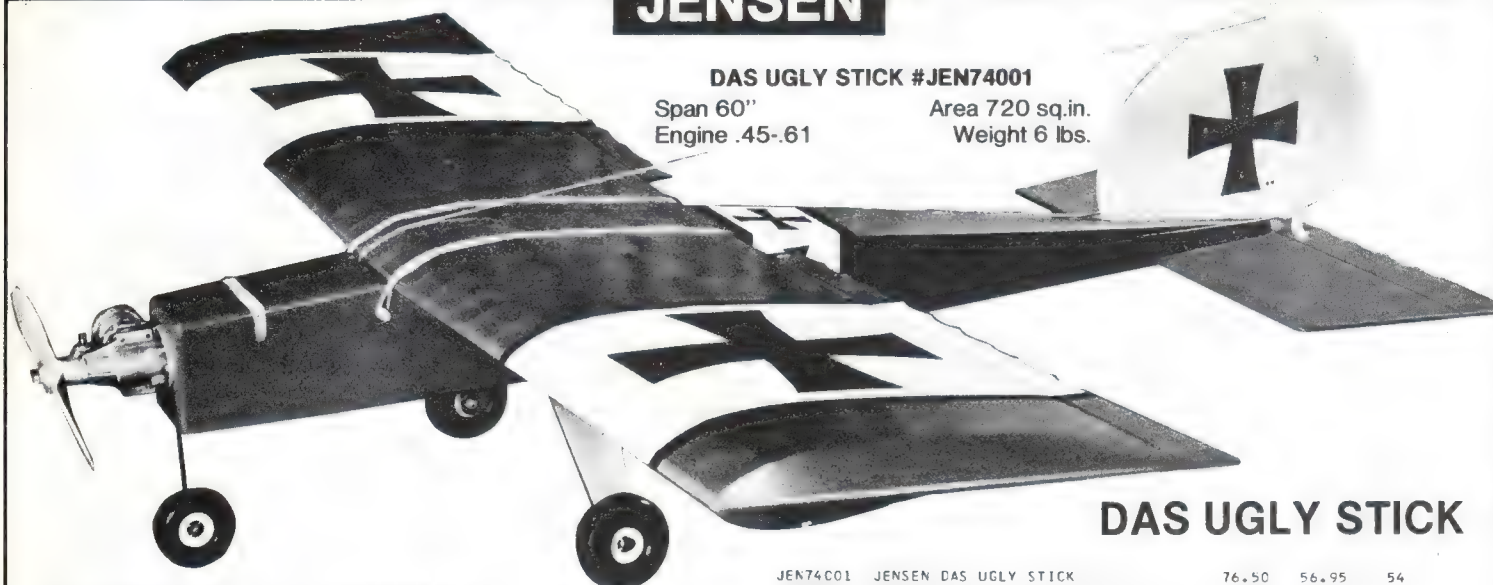
HCU72C03	HOUSE OF BALSA PIETENPOL	64.95	48.70	52
HCU72C04	HOUSE OF BALSA 1/2 A P-51 MUST	34.95	26.95	53
HCU72C05	HOUSE OF BALSA 1/2 A ME-109	34.95	26.95	53
HCU72C06	HOUSE OF BALSA 1/2 A P-47	34.95	26.95	53
HCU72C07	HOUSE OF BALSA 1/2 A CHIPMUNK	34.95	26.95	53
HCU72C08	HOUSE OF BALSA 1/2 A P-39	34.95	26.95	53

HCU72C09	HOUSE OF BALSA 1/2 A BONANZA	34.95	26.95	53
HCU72C10	HOUSE OF BALSA 1/2 A FW-190A	34.95	26.95	53
HCU72C15	HOUSE OF BALSA 1/2 A PETE K-15	29.95	23.95	53
HCU73000	H.O.B. WK-16 .29-.40 P-51D	69.95	52.45	52
HCU73002	H.O.B. WK-17 .40 P-51D GLASS	119.95	95.95	52
HCU73040	HOUSE OF BALSA PITTS S-2	109.95	82.45	52



# MODEL AIRPLANE KITS

## JENSEN



### DAS UGLY STICK #JEN74001

Span 60"  
Engine .45-.61

Area 720 sq.in.  
Weight 6 lbs.

## DAS UGLY STICK

### KIT INCLUDES ALL HARDWARE

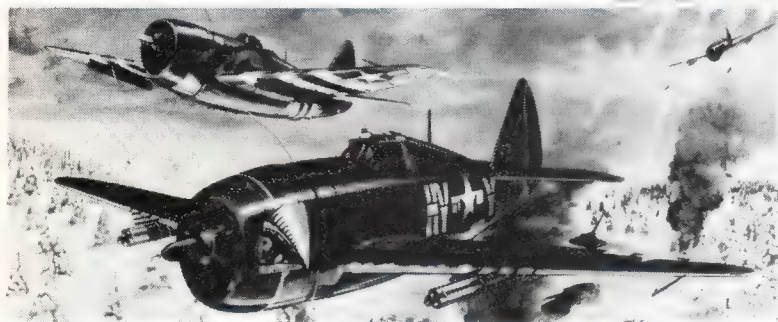
- HEAVY DURAL FORMED MAIN GEAR
- NOSE GEAR
- STEERING ARM
- PUSHRODS & CLEVISES
- CONTROL HORNS
- BELLCRANKS
- NYLON BEARING BLOCKS
- BRASS & PLASTIC TUBING
- BOLTS, NUTS ETC.

JEN74C01	JENSEN DAS UGLY STICK	76.50	56.95	54
JEN75C01	JENSEN WING KIT DAS UGLY STICK	32.50	28.95	54
JEN76C01	JENSEN FUSE KIT DAS UGLY STICK	35.75	31.95	54

The Jensen Das Ugly Stick is considered by many to be the finest R/C Trainer ever made. It is ideal for the beginner or the experienced flier. This all balsa construction kit is very quick and easy to build. Quality of machine cut wood and sanded parts is excellent, and the fit is unusually accurate. The kit is very complete, including heavy dural formed main gear, nose gear, steering arm, pushrods, clevises, horns, bellcranks, etc.

WING AND FUSE KIT AVAILABLE

## JEMCO



P-47

### An Exact Scale R/C Kit

Kit Includes:

- Usual "JEM-LOC" Easy Fuse Construction.
- Foam Core Wings with Extra Large Trailing Edges for simple Aileron and Flap Removal.
- Three Views and Six Profiles with Color Notes.
- Decal Sheet which allows Six Color Schemes.
- Formed Plastic Parts for all Hard to make Shapes.

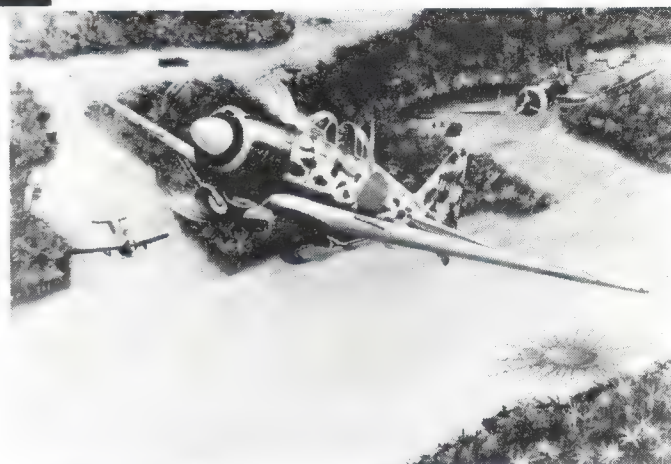
.40-.60 Engine      525 Sq. In.  
54" Span              4-6 Channel

### THE "JUG" IS HERE!

P-47D Razorback or Bubble Version

Special Features:

- One piece Scale ABS Cowl includes Motor • Detailed Scale Canopy and Sliding Canopy Illustrations • Scale Dashboard and Scale Printed Instrument Panel • Scale Pilot Seat • Scale Operating Inter Cooler Doors • Bomb Drop Hook-up Illustrations • Two Bombs w/ply Fins • Drop Tank • Exact Scale Turbo Charger Duct • Converts to Bubble Canopy easily • Many other Scale Details Shown • Optional Illustrated Exhaust Expansion Chamber allows—oil separation—Muffler function—and two Scale Exhaust Outlets.



## "Zero" A6M3

- Full Size Cockpit
- Pilot Seat
- Drop Tank
- Exact Scale
- Super Decals
- Accurate Cowl

Balsa fuse,  
foam wings

### "LAZY BUILDERS" LOVE OUR KITS

Because they are the easiest to build "Scale Kits" around.

### "JEMLOC" Sport Scale R/C Kit

.36 - .46 Eng.  
54" Span  
500 Sq. In. Area  
6½ - 7½ lbs.  
4 - 6 Channel

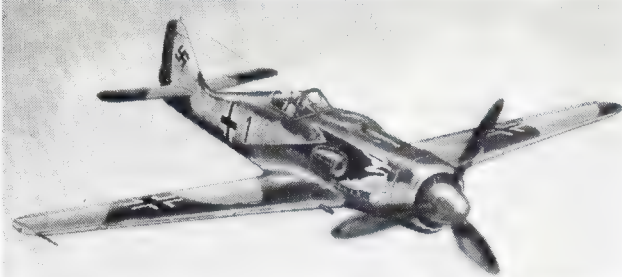


## JEMCO

### JEMCO FOCK-WULF Fw 190D-9

.29 - .40 Stand Off Scale R/C

Designed For The Sport Flyer



The "Long Nose" version of the famous Fw-190A was one of the fastest propeller driven Luftwaffe aircraft of WWII. Developed late in the war, less than 700 were produced. Detailed three views of one prototype and two production versions are included along with color data. Flap and retract prints and instructions available.

Span 50 in. Area 450 sq.in. .29 - .40 Engine 4 - 4½ lbs

● MOLDING CANOPY, EXHAUST, GUN BLISTERS & COWL ● ALL DIE CUT FUSELAGE PARTS ● FOAM CORE WINGS & BALSA SHEETING ● WRITTEN INSTRUCTIONS ● CUSTOM DECALS ● COMPLETE HARDWARE ●

Featuring New Self Aligning Self Ligning JEMLOC Super Fast Fuselage Construction.

### JEMCO North American P-51 MUSTANG

.29 - .40 Stand Off Scale R/C

Designed For The Sport Flyer



The ultimate in Standoff Scale, and a beautiful selection for the competent Sport Flyer. Included is a super decal sheet that allows you to choose from five different military schemes and the Miss America scheme. Flies great and looks great on the flight line. Flap and retract prints and instructions available.

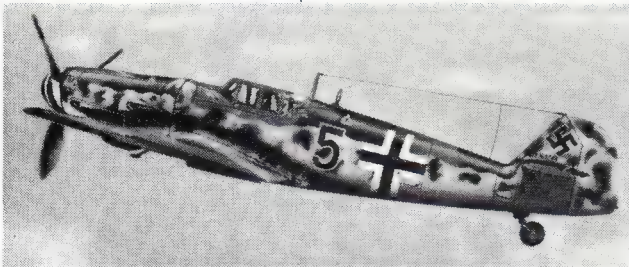
● MOLDING CANOPY AND EXHAUST ● FOAM CORE WING & SHEETING ● LARGE DECAL SHEET ● COMPLETE HARDWARE ● WRITTEN INSTRUCTIONS ●

Span 50 in. Area 450 sq.in. .29 - .40 Engine 4 - 4½ lbs.

### JEMCO Messerschmitt ME 109G-2

.29 - .40 Stand Off Scale R/C

Designed For The Sport Flyer



The Me-109 was the most produced German fighter of WWII. Its distinctive appearance makes it a popular choice for the competent Sport Flyer. A sheet showing camouflage and markings for seven different schemes is included. Builds fast and flies great. Flap and retract prints and instructions available.

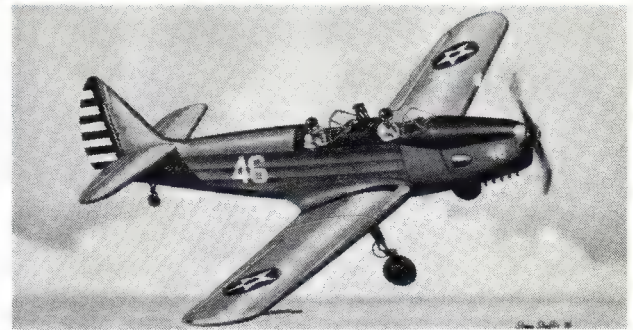
● MOLDING CANOPY ● EXHAUST & SCOOPS ● COMPLETE HARDWARE ● FOAM CORE WING & SHEETING ● DECAL SHEET WRITTEN INSTRUCTIONS ●

Span 50 in. Area 450 sq.in. .29 - .40 Engine 4 - 4½ lbs.

### JEMCO Fairchild PT 19 Primary Trainer

.29 - .40 Stand Off Scale R/C

Designed For The Sport Flyer

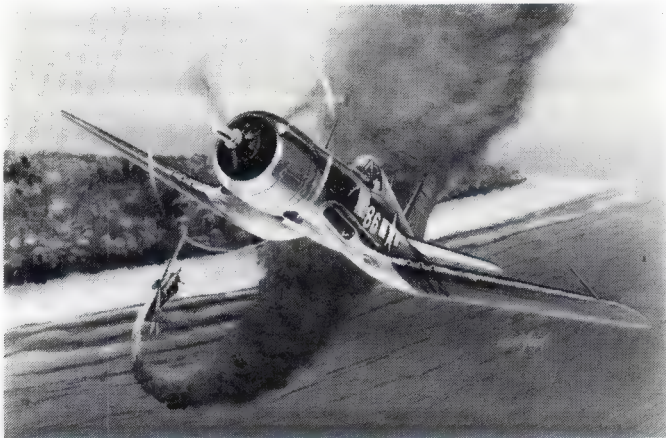


If you have flown various types of trainer planes, and have become comfortable in your ability, to fly, then our PT-19 is for you. This is a realistic looking plane that takes off and lands easily.

Span 50 in. Area 450 sq. in. .20 - .40 Engine 3½ - 4 lbs.

● ABS COWL ● FOAM CORE WINGS WITH COMPLETE INSTRUCTIONS ON COVERING FOAM CORES ● BEAUTIFUL DECAL SET ● COMPLETE HARDWARE ● WRITTEN INSTRUCTIONS ●

## F4U-1 CORSAIR



## JEMCO AT-6



A kit that builds right into your hands! Features "Jemloc" all-balsa fuse construction, foam core wing (sheeting supplied), pre-formed plastic wing fairing and "Sport Scale Flight Training Manual." Requires a .35-.46 engine and a 4 channel radio. 55" span. Includes canopy, cowl, scoops, decals and 3 views.

### Chance-Vought F4U-1A "Corsair" by JEMCO

● FEATURING "JEMLOC" FUSELAGE CONSTRUCTION ● THREE VIEWS & COLOR NOTES ● CUSTOM DECAL SHEET ● SPORT SCALE FLIGHT TRAINING MANUAL

Balsa fuse, foam wing

JEM72100	JEMCO MUSTANG - FUN SCALE	44.95	35.95	56
JEM72200	JEMCC P-39 CCBRA - FUN SCALE	46.95	37.55	56
JEM72300	JEMCC AMERICAN EAGLE 50	46.95	38.95	56
JEM73101	JEMCC FAIRCHILD PT-19	64.95	49.95	55
JEM73102	JEMCC P-51 MUSTANG	64.95	49.95	55
JEM73103	JEMCC ME-109 BF109G-2	64.95	49.95	55
JEM73104	JEMCC FOCKE WULFE FW-190D-9	64.95	49.95	55
JEM73105	JEMCC AT-6 NC.AMERICAN TEXAN	64.95	49.95	55
JEM74105	JEMCC F4U-1A CORSAIR	79.95	59.95	56
JEM74106	JEMCC F6F HELLCAT	84.95	63.95	56
JEM74107	JEMCC ZERG	79.95	59.95	54
JEM74108	JEMCC P-47	94.95	69.95	54



## JEMCO

### Fun Scale MUSTANG

PRICES AND  
STOCK NUMBERS  
ARE ON PAGE 55.



Own a model that looks real and flies easily! Lands like a trainer, yet is very maneuverable. This all-balsa plane has all parts cut to shape. Requires a .19-.40 size engine and a 4 channel radio. 51" span. Unique wing construction eliminates dihedral braces and wing sheeting. Decals shown in the picture above are included in the kit. An ideal plane for small fields or school yards!

### THE ULTIMATE BASIC TRAINER AMERICAN EAGLE "50"



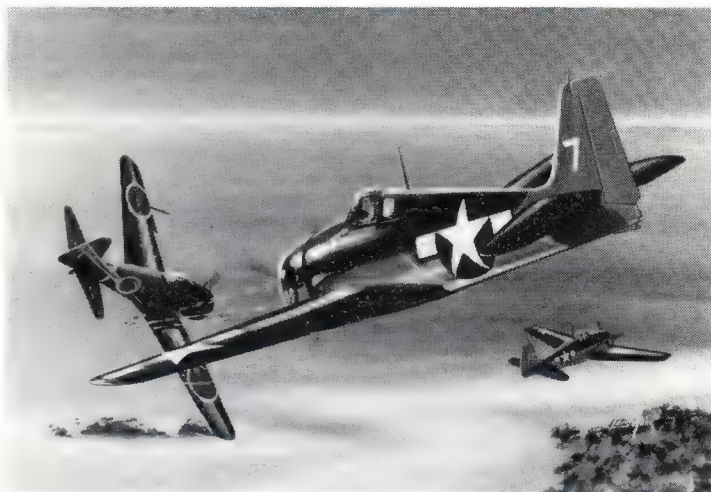
This realistic-looking, basic trainer was designed for those new to model building. Features self-aligning "Jemloc" construction for simple assembly. Its new wing design uses spars with set dihedral and self-aligning ribs. No special tools are needed to construct this kit. Requires a .15-.40 size engine and a 3-4 channel radio. 50" span. This balsa kit comes with push rods, ailerons and torque rods, hardware, pre-cut parts, built-in servo rails, decals and over 20 step-by-step assembly illustrations. Complete radio illustrated installation instructions are also included.

### "Fun Scale" COBRA



This "Fun Scale" model can be built and flown in seven days! Easy-to-fly, yet very maneuverable. Features all-balsa parts cut to shape, "Jemloc" fuse design, unique wing construction that eliminates dihedral braces and wing sheeting, hinges, control horns, decals, scale canopy and hardware. Requires a .19-.25 size engine and a 4 channel radio. 51" span. Makes a great 2nd trainer for the novice.

### GRUMMAN F-6-F "HELLCAT"



A very docile flyer that looks exact scale. This sport scale RC kit takes approximately two weeks for the average builder to construct. Requires a .40-.60 size engine and a 4-6 channel radio. 56" span. Features balsa and ply construction, foam core wing, balsa sheeting and beautiful decals. Molded drop tank and two bombs also included.



# JET HANGAR HOBBIES

## MIRAGE III

A HIGH PERFORMANCE DUCTED FAN FIGHTER



### SPECS:

60" Length; 45" Wingspan; 706 sq. in. area;  
Wing Loading: 30 Ounces; Weight: 9-10 lbs.

Required, but not included in kit:

Jet Hangar Hobbies Turbax I (see p. 237) ducted fan unit (formerly Scozzi); 3-Gear Rhom-Air Retracts (see p. 361); 1/64" plywood exhaust tube; Manufacturer recommends the K&B 6.5cc (no. 9020) or K&B 7.5cc (no. 9100) RC Engine with Perry Pump, pressure carb, and tuned pipe with muffler, although other engines can be used.

This Semi-Kit includes lightest weight epoxy fiberglass fuselage (average weight = 24 ounces), air inlet ducting, engine cover cap, vacuum - formed drop tanks, control horn fairings and intake diffusers, drawings and clear plastic canopy. Built - up wing plan shows all templates.

### ADDITIONAL INFORMATION:

Prototype recorded flights from 105 to 130 M.P.H. at full throttle and is capable of executing stand-off scale pattern. Model has EXCELLENT slow flight characteristics.

Aircraft suitable for 5 - channel operation with retracts; 6th servo optional for nose gear steering

A complete line of accessories and component parts required to complete kit are available from the manufacturer direct

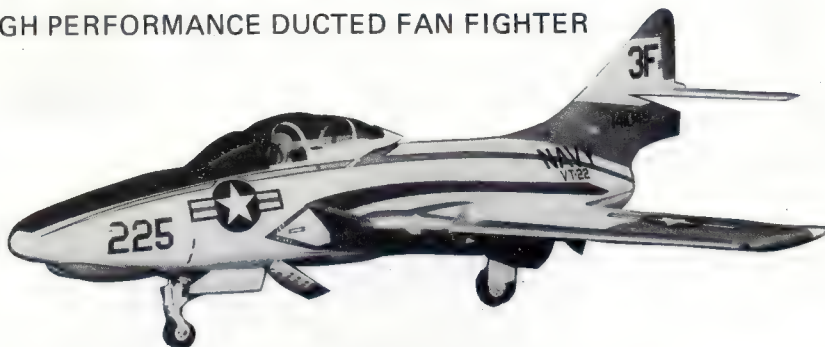
Mirage V nose conversion available from manufacturer

JET73C00	JET HANGAR HOBBIES MIRAGE III	139.95	132.95	57
JET73100	JET HANGAR F9F-8 COUGAR	139.95	132.95	57

GRUMMAN F9F-8

## COUGAR

A HIGH PERFORMANCE DUCTED FAN FIGHTER



### SPECS:

56" Length; 47" Wingspan; 755 sq. in. area;  
Wing Loading: 28 ounces

Required, but not included in kit:

Jet Hangar Hobbies Turbax I (see p. 237) ducted fan unit (formerly Scozzi); 3-Gear Rhom-Air Retracts (see p. 361); Manufacturer recommends the K&B 7.5cc RC Ducted Fan Engine (see p. 195), although other engines can be used.

This Jet Hangar Hobbies kit handles as easily and as stable as a trainer. It possesses a good, flat glide, yet with the new K&B No. 9100 engine, it is capable of 120 M.P.H. flight speeds. The cougar is totally aerobatic with excellent slow flight characteristics. The kit consists of a lightweight epoxyglass fuselage, a three piece epoxy inlet ducting system, engine cover cap, clear plastic canopy and full size plans with all templates shown for the built up construction. The model will fly with a minimum of four channels. Additional scale features include dive brakes, flaps, retracts and an accurate scale outline. The Grumman F9F-8 Cougar kit utilizes a proven internal airflow system. This aircraft was designed especially for ease of maintenance, scale appearance, and flyability.



**KRAFT**

**ELECTRIC POWERED FOR 2-CHANNEL RADIO CONTROL**

**KRAFT**  
SYSTEMS, INC.



44.75" WING SPAN • 30.5" IN LENGTH • 295" SQ. OF AREA • WEIGHS 33OZ. WITH RADIO EQUIPMENT INSTALLED • FLIES 3 TO 4 MINUTES

**STABLE, SMOOTH FLYING SCALE MODEL OF ONE OF AMERICA'S MOST POPULAR LIGHT PLANES LARGE WING AREA MAKES IT A GOOD TRAINER.**

## **CESSNA CARDINAL**

- **ELECTRIC POWER IS CLEAN AND SIMPLE TO OPERATE**
- **AMPLE POWER FOR EXCITING PERFORMANCE**
- **NO HARD STARTING, MESSY GLOW ENGINES — JUST SWITCH ON TO FLY**
- **READY TO FLY IN MINUTES — PREPAINTED AIRCRAFT CAN BE ASSEMBLED QUICKLY WITH ONLY A SCREWDRIVER**
- **MOTOR BATTERY PACK RECHARGES IN 15 MINUTES**

### **MOTOR:**

*Designed especially for this application, the quality electric motor features high temperature windings and a balanced armature. Motor is installed.*

### **REQUIRED ACCESSORIES:**

#### **2 CHANNEL RADIO CONTROL:**

Kraft Sport Series KP-2AS or KP-2A is recommended

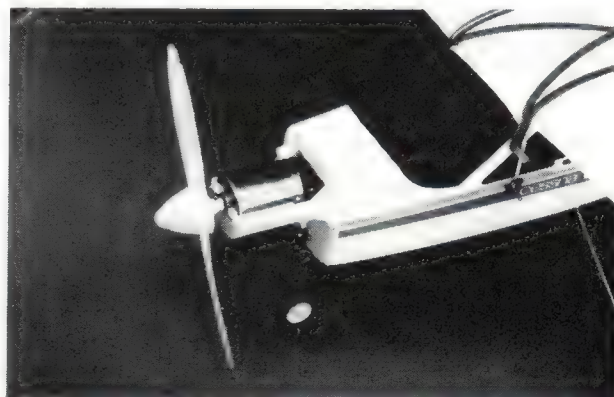
#### **MOTOR BATTERY:**

Kraft EP-6 Part No. 004-003

#### **CHARGER FOR MOTOR BATTERY:**

EP-6 Slow Rate [117 Volt] Kraft Part No. 004-004

EP-6 Fast Rate [Operates from car cigarette lighter] Kraft Part No. 004-005





**KRAFT**

**ELECTRIC POWERED FOR 2-CHANNEL RADIO CONTROL.**



Highly maneuverable sporty 1/10 scale model of a World War II trainer.

# CHIPMUNK

- CLEAN, QUIET, AND ECONOMICAL
- READY TO FLY IN MINUTES
- SIMPLE IN OPERATION
- MOTOR BATTERY RECHARGES IN 15 MINUTES
- NO MESSY GLOW ENGINES—JUST SWITCH ON TO FLY
- AMPLE POWER FOR EXCITING PERFORMANCE

ELECTRIC MOTOR FEATURES HIGH TEMPERATURE WINDINGS AND A BALANCED ARMATURE.

KRAFT SPORT SERIES KP-2AS OR KP-2A RADIO CONTROL SYSTEM IS RECOMMENDED FOR USE WITH THE CHIPMUNK.

**REQUIRED ACCESSORIES:**

**2 CHANNEL RADIO CONTROL:**

Kraft Sport Series KP-2AS  
or KP-2A is recommended

**MOTOR BATTERY:**

Kraft EP-6 Part No. 004-003

**CHARGER FOR MOTOR BATTERY:**

EP-6 Slow Rate (117 VOLT), Kraft  
Part No. 004-004

EP-6 Fast Rate (Operates  
from car cigarette lighter)  
Kraft Part No. 004-005

**SPECIFICATIONS:**

40" WING SPAN • 30.75" IN LENGTH • 235" SQ. OF AREA •  
WEIGHS 30 OZ. WITH RADIO EQUIPMENT INSTALLED • FLIES 3 TO 4  
MINUTES

KRA72C00	KRAFT RTF ELECTRIC CARDINAL	59.95	79.95	58
KRA72100	KRAFT RTF ELECTRIC CHIPMUNK	99.95	79.95	59
KRA19C03	KRAFT 004-003 ELEC. MOTOR BATT	24.95	19.95	59
KRA19C04	KRAFT 004-004 CHARGER-SLOW	9.95	8.95	59
KRA19C05	KRAFT 004-005 CHARGER-FAST	24.95	19.95	59



## LANIER

# Lanier Ready-to-Fly\* Models

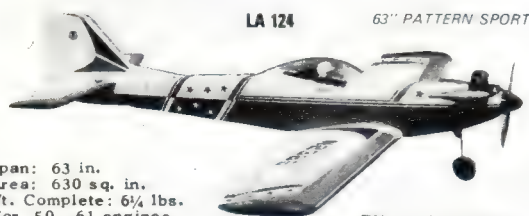
...every one designed and flown by the experts!



Flies with motor, rudder, elevator control. (No ailerons).

Span: 48 in.  
Area: 480 sq. in.  
For .15 or .19 engines

## Jester



Span: 63 in.  
Area: 630 sq. in.  
Wt. Complete: 6 1/4 lbs.  
For .50-.61 engines

Flies with rudder, elevator, aileron and motor control.

Can be built either tricycle or tail dragger

## Transit

3 Channel Trainer



\*Wing, stab & fin covered with "tough-skin"

Span: 65 in.  
Area: 520 sq. in.  
For .35 or .45 engines

Flies with motor, rudder, elevator control. (No ailerons).

## CAPRICE

KIT LA 116

designed by George Hill



Span: 63 in.  
Area: 630 sq. in.  
Wt. Complete: 6 1/4 lbs.  
For .50-.61 engines

HARD SKIN WING AND STAB.

FLIES COMPLETE AMA & FAI PATTERNS

Can be flown either tail dragger or tricycle.

Assemble in  
5 to 12 hours.

**NEW!**  
features

Complete hardware. All Lanier kits contain a complete set of hardware including a steering arm, hub

caps, control horns, aileron hardware [where applicable] and other items needed except the fuel tank and wheels.

Faster assembly. We Pre-Hinge® ailerons and elevators on all models, rudders on most.

Better Value. Prices of Lanier models have gone up, but they haven't skyrocketed like balsa kits. Even if you don't count your labor, a Lanier kit costs less.

## PLUS THESE REGULAR FEATURES

- Lanier planes fly better because automatic machines mold every wing accurately and true. Wings and stabilizers are molded from styrofoam and pre-covered with special hard skin\*. Elevator, rudder, and ailerons are balsa covered with Air-O-Skin.
- Lanier planes fly better because every fuselage is vacuum formed from Air-O-Sheet & assembled with specially made tools to

make sure it's straight. Air-O-Sheet is tough, pliable material that will not shatter like fiberglass and other plastics. Fuselages are complete with motor mounts, engine cutouts and dorsal fin and are available in several colors.

- Models have nose and main landing gears pre-formed and aileron linkage ready for installation.
- Models are fuel resistant.
- Interchangeable spare parts are available.
- All kits come with step-by-step instructions and Air-O-Cement.

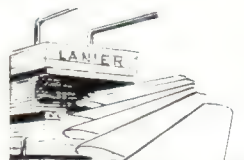
LANIER PUTS IT ALL TOGETHER... UNDER ONE ROOF!



Lanier buys custom made plastic raw material from a large established supplier. Our special specifications assure the best formulation for R/C use. We do not think off the shelf materials are good enough.



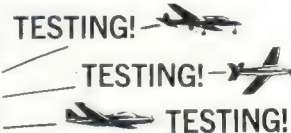
Our sheet plastic quality is determined by the exacting extrusion conditions we maintain. Lanier is the only Ready-to-fly manufacturer who can control the quality of its sheet stock which means you get the best!



We mold our own wings too, so that we can control the weight and quality needed to produce the best in R/C Models. All wings and tails are molded (not cut from a block) for accuracy.



It took a long time to develop—but our hard skin really stays on—at home in the basement and out in the sun too! We extrude our own sheet plastic and use a special formula adhesive.



Lanier has been making Ready-to-fly Models for 10 years and developed the first successful model of this type. We still "test" before we sell and wish the competition would do the same, sometimes we wonder. Don't try it unless you know the manufacturer tests—you may not like it!



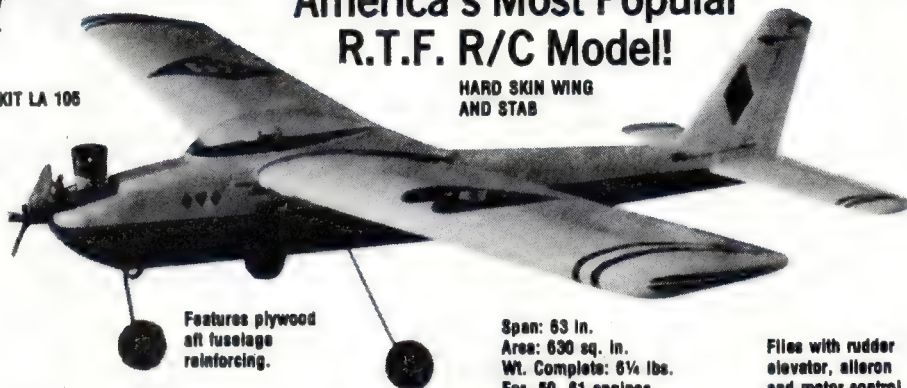
## LANIER

**\*FOUR EASY STEPS TO R/C FLYING** 1. Glue pre-cut wing halves together. 2. Mount tail surfaces. 3. Attach control surfaces. 4. Install engine and equipment (not included). **NOTHING** to build, cover or paint.

### Comet II

- \* Four Easy Steps to R/C Flying**
1. Glue pre-cut wing halves together.
  2. Mount tail surfaces.
  3. Attach control surfaces.
  4. Install engine and equipment (not included).
- NOTHING** to cover or paint.

KIT LA 105



Features plywood  
aft fuselage  
reinforcing.

Span: 63 in.  
Area: 630 sq. in.  
Wt. Complete: 6 1/4 lbs.  
For .50-.61 engines.

Flies with rudder  
elevator, aileron  
and motor control.

### America's Most Popular R.T.F. R/C Model!

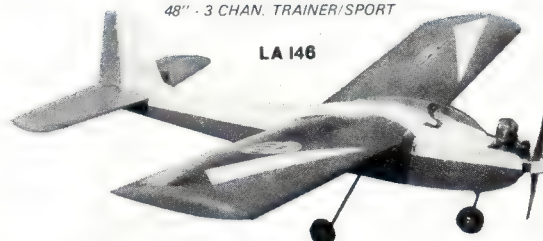
**Getting Started in R/C?**  
We recommend the Comet II and Pinto  
for Sport Flying and Training.

Lanier models are made in the U.S.A

### Pinto

48" - 3 CHAN. TRAINER/SPORT

LA 146



Flies with rudder,  
elevator and motor  
control.

Span: 48 in.  
Area: 480 sq. in.  
Wt. complete: 3 lb. 8 oz.  
For .23 or .35 engines

## LEN SEZ! HINTS & SUGGESTIONS

Quik fuselage repairs are easy—just follow the following steps.

1. Clean the damaged area of the fuselage (not wings) with alcohol and allow to dry.
2. Cut a piece of Quik 1/4" larger on all sides than the repair area. Quik is a cloth material—specially treated.
3. Dip the Quik into air-o-cement (or MEK)—immediately apply to fuselage—smooth out with finger and allow to dry and harden.
4. Lightly sand and then paint with scrap plastic and dissolve in air-o-cement. This method handles compound curves with ease.

Flutter at high speed? It can be a problem if you allow any "slop" anywhere—like in push rods and servos.

1. Do not use ANY kind of plastic push rods.
2. Use a center bearing of some sort on all divided elevator models.
3. Use double push rods—one for each elevator half.
4. Keep the engine tight.
5. Do not use blind nuts for engine mounting.

### TRIM...

• Trim is the modern, easy way to add individuality to your model. Just cut one of the two basic shapes (the strip or the taper), peel off the backing, press Trim on... It stays on until you want to take it off. You can apply Trim to almost any doped, painted, plastic, wood or silk surface.

No wheels? Many new pilots find it easier to master the art of landing if the wheels are left off on the initial attempts. Landing in short grass without the wheels makes the big problem less hazardous.

How long to assemble? This question is often asked and of course the abilities of the pilot is a major factor. Usually 5-12 hours will completely assemble a model and ready it for flight.

LAN72119	LANIER LA119 CESSNA	52.95	36.95	60
LAN73108	LANIER LA108 TRANSIT	52.95	36.95	60
LAN73146	LANIER LA146 PINTO	52.95	36.95	61
LAN74105	LANIER LA105 COMET II	65.95	45.95	61
LAN74116	LANIER LA116 CAPRICE	75.95	52.95	60
LAN74123	LANIER LA124 JESTER	75.95	52.95	60



## MODEL AIRPLANE KITS

### MARK'S MODELS



# SUNNY

Wing Span ..... 40 in.  
Wing Area ..... 555 sq. in.  
Power ..... 15 cu. in.  
Weight ..... 3½ lbs. (Ready to fly)

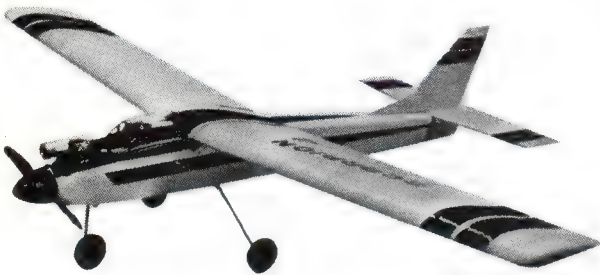
This kit features all-balsa construction, illustrated instructions, and full size plans. Requires a 3 channel radio.



Wing Span ..... 68.75 in.  
Wing Area ..... 555 sq. in.  
Power ..... .15 to .19 cu. in.  
Weight ..... 3 lbs. (Ready to fly)

## Bushwacker

Included in this kit are a 52-page instruction book, bell cranks, control horns, formed landing gear, hinges, mounting bolts, blind nuts, engine mount, fuel tank, wheels, spinner, pushrods and clevis.



## SCORPION IV

Check out a *Scorpion IV* before you buy, build and fly an R/C trainer. The *Scorpion* kit contains precision die-cut and machined parts that key together for fast, accurate assembly. The special light plywood fuselage sides lock the bulkheads into position. The wing ribs slip into alignment notches in the spar and trailing edge. Hardwood spar caps make the wing light, yet strong as a bridge.

The kit includes a clear, heavy-gauge, formed canopy and formed wire landing gear. At this low price, you can save a bundle if you already have the wheels, clevis, push rods and other miscellaneous items.

MARK2C00 MARKS MODELS SUNNY BIPE 34.95 25.95 62  
MARK2C04 MARKS MODEL BUSHWACKER W/ACCES 52.95 35.95 62  
MARK73C10 MARKS MODELS SCORPION IV 39.95 29.95 62

Span ..... 58 in.  
Wing Area ..... 519 sq. in.

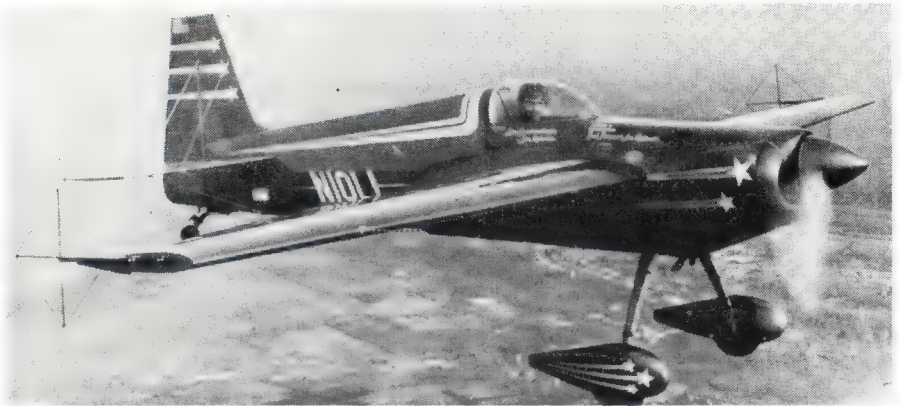
Engine ..... .30 to .40 size  
Radio ..... 4 Channel

### MALLORY MODELS

QUARTER SCALE

## LASER 200

LIGHT UP YOUR LIFE  
WITH A LASER



Quarter-scale rendition of Leo Loudenslager's (Nat'l Aerobatic Champion) Laser 200 flies the full Vegas Tournament aerobatic routine on either a .60 (belt drive) or a .90-1.2 (straight drive engine). Amazingly light wingloading (only 10 pounds all-up weight on 1,000 sq. in. of area) gives it the performance of models half its size. It's so scale that the kit is endorsed by Leo Loudenslager himself.

#### SPECIFICATIONS

\*73.5" span \* 1,000 sq. in. area \* 10-11 lbs. \* 4 channel

Deluxe kit includes: \* epoxy/glass fuse (firewall installed), hatch and wheel pants \* foam flying surfaces \* special 6061-T6 tubular aluminum spars (wing slide on for easy transportation) \* scale decals and full-size documentation drawings.

MAL74200 MALLORY MODELS LASER 200

179.95 169.95 62

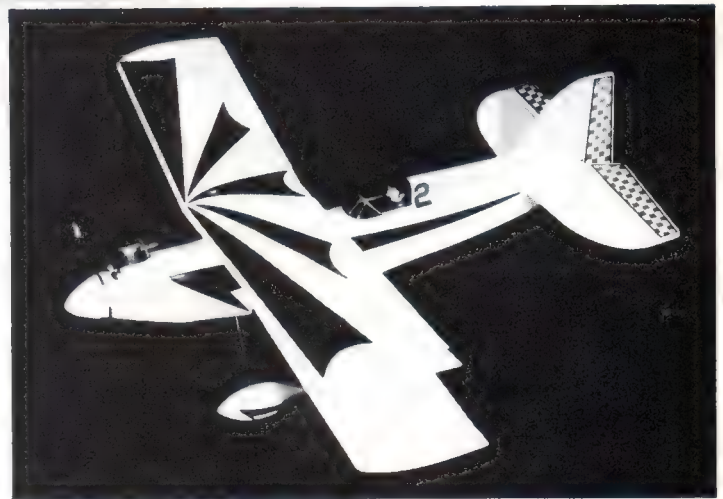


## MASTER KIT



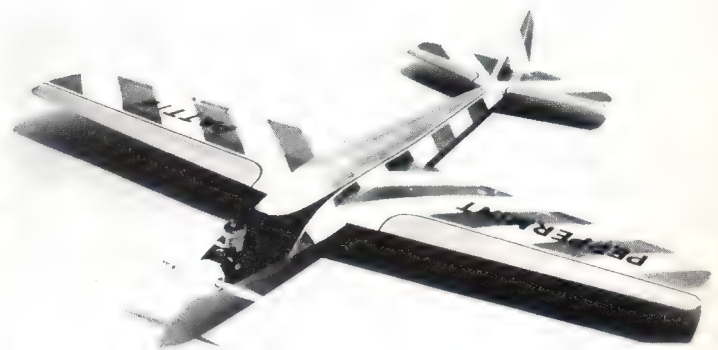
**HIPERBIPE**

Engine .40-.50      Span 42"      Weight 4-5 lbs.  
This unique and fully aerobatic biplane is an all balsa construction stand-off scale kit. It features a balsa cowl which totally encloses the engine and Semco's Pitts Junior muffler (not included, see p. 328), machine cut and sanded balsa and plywood, windshield material and template, two full size detailed rolled plan sheets, instruction booklet with diagrams and photos, and a fairly complete hardware package. The kit is easy to build and has bolt on wings and decals.



**STINGER II**

Engine .40-.45      Span 38"      Weight 4½ - 5½ lbs.  
This exciting biplane features full size and well detailed plans with many break-apart drawings, all balsa construction, select die cutting with appropriate weight balsa, ABS wheel pants, fairly complete hardware package, pre-formed landing gear, machine cut and sanded plywood parts, and precision cabane alignment. Both wings bolt on with nylon bolts for your convenience. This kit has been designed to be easy in construction and yet be very strong and rugged. Gentle flying characteristics for beginner biplane pilots.



**PEPPERMINT PATTIE**

Engine .15-.20      Span 45"      3 - 4 Channels  
This super sleek, high performance plane features matched balsa fuselage sides, select balsa wing sheeting, precision die cutting, all balsa construction, hardware package, full size plans, instructions, and construction photos. Designed for 3 - 4 channel operation. This model is super in the hands of an experienced sport and competitive pilot. It will do most maneuvers of the pattern as well as much more. It's high performance and quick control responses make it a model not recommended for the inexperienced or beginner pilot.

MA572000	MASTER KIT PEPPERMINT PATTIE	39.95	31.95	63
MA573000	MASTER KIT STINGER-II BIPLANE	64.95	48.95	63
MA573100	MASTER KIT HIPERBIPE	74.95	52.45	63



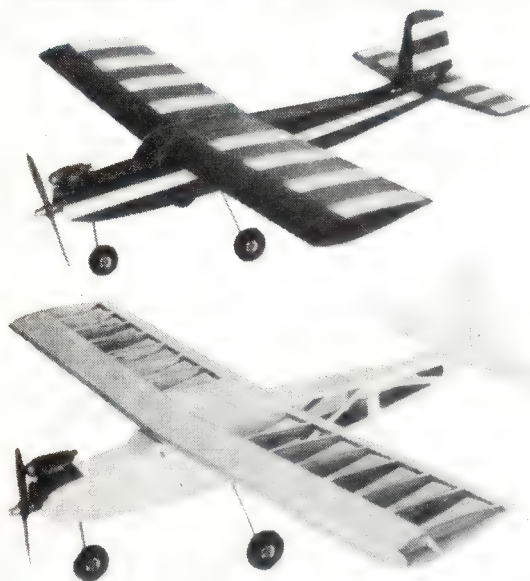
## M.E.N.

# THE M.E.N. TRAINER

A superb trainer that's great for the beginner or the seasoned flyer! The M.E.N. Trainer enables you to learn radio control flying with minimum supervision and flight training time. Its slow flight and ease of command virtually allows hands-off control, while its distinctive size and shape assure you maximum visibility and ease in recognition of plane attitude when flying beyond normal ranges. This trainer will recover hands-off from any attitude in 100 feet or less of altitude loss when properly trimmed allowing the beginner to re-orientate himself. For those first landings the M.E.N. Trainer will virtually land itself with little input required from the beginner pilot. Requires a .15-.25 size engine and a 3 channel radio. 58" wing span. Kit includes light ply-spruce-balsa construction, precision die cut ribs, fuse sides, bulkheads, dihedral braces, etc. for quick assembly and ease of construction. Also includes pre-formed landing gear and brace, wrapping wire, easy-to-follow plans and instructions and a generous hardware package.



# M.E.N. TRAINER "40"



This intermediate trainer can be slowed to a fast walk for landing, yet at flying speed it is capable of flying most of the AMA pattern. M.E.N.'s "Thru-Cut" die cutting combined with "Tri-Square-Loc" construction in light ply, balsa and spruce make construction fast and simple. This kit is designed for a 4 channel radio and a .35-.45 size engine. Has a 52" wing span. The kit features "Thru-Cut" die cutting, quality materials, rolled plans, building instructions, complete hardware package, pre-shaped wing leading edge in spruce, die-cut spars in light plywood and pre-bent landing gear wire. This kit takes about 12 to 25 hours to assemble.

# PIPER CUB J3

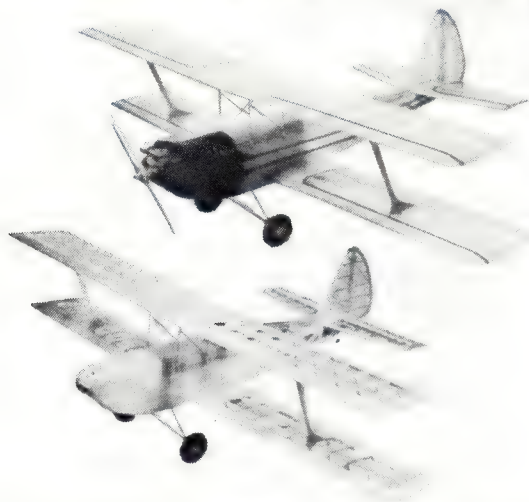
The Piper Cub J3 is a realistic rendition of a popular airplane that has a speed range of 8 to 40 M.P.H. Its wing design gives realistic slow flight and excellent stability. The "Thru-Cut" die cutting, combined with Tri-Square-Loc assembly in light plywood, balsa and spruce, make construction simple enough for the beginner. The inherent strength of the light ply construction provides durability and lasting performance. You will be spending more time on the flying field and less at the repair bench. Requires a 3 ch. radio and a .29-.35 engine. 72" wing span. The J3 kit features quality materials, rolled plans, building instructions, complete hardware package, die cut windshield, and pre-shaped landing gear. All decals included.



PEN72000	PEN TRAINER .15-.25	37.95	29.95	64
PEN73000	PEN BUZZARD RCMBSP-ELL	59.95	47.95	65
PEN73100	PEN TRAINER 40	59.95	47.95	64
PEN73200	PEN J-3 PIPER CUB	49.95	39.95	64
PEN74100	PEN BIG JOHN	129.95	99.95	65



## M.E.N.

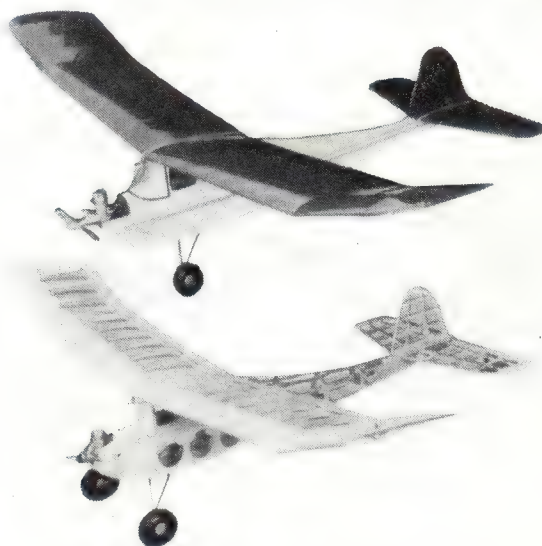


# "BIG JOHN"

This update of the classic "Big John" with modern building and construction techniques was designed to create a stronger, lighter, easier to build model. This model will do just about any maneuver if you don't mind waiting a little while for it to get completed. It makes a great exhibition plane! Designed for fast, easy building, this kit features "Tri-Square-Loc" construction. This construction allows for the best in light ply construction. This method of square straightening and holding parts in relation to one another revolutionizes construction. Requires a 4 channel radio and a .60 -.90 engine. Has a 76 3/4" wing span. The kit includes die cut balsa, quality materials, rolled plans, building instructions, wing jig building fixtures, complete hardware package, pre-bent landing gear and cabane strut wires. Building time is about 25-45 hours.

# BUZZARD BOMBSHELL

The Buzzard Bombshell is a re-creation of a classic old timer free flight. It can be built and flown as a free flight, as an RC assisted free flight with rudder only, Rudder/Elevator or Rudder/Elevator/Throttle control. The strengthened and converted Bombshell meets the Society of Antique Modelers requirement for RC Old Time Competition when flown with a .36 engine. The kit features "Thru-Cut" die cut one piece light plywood fuselage sides and 4 cabin bulkheads, "Thru-Cut" balsa wing ribs, wing tips and braces, fuselage bulkheads, stabilizer tips, cabin windows, pre-bent landing gear wire, complete step-by-step building instructions and window material. Requires a .25 -.40 glow or .45 -.60 ignition engine and a 3 channel radio. 72" wing span.



# MICHIGAN HOBBY HANGAR

# AEROTIQUE



A slow, easy-flying, aerobatic aircraft that attracts attention! This realistic oldy was designed to look complicated, yet is easy to build. Requires a .35 size engine and a 4 channel radio. Has a 45" fuselage and a 59" wing span. The Aerotique kit is made of Sig balsa and plywood and includes full-size plans, hardware and step-by-step instructions. Flying weight is 4 to 4 1/2 lbs.

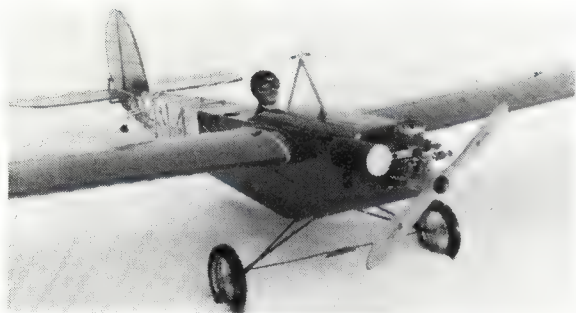
MHH73C02 MICHIGAN HOBBY AEROTIQUE

61.95 44.95 65



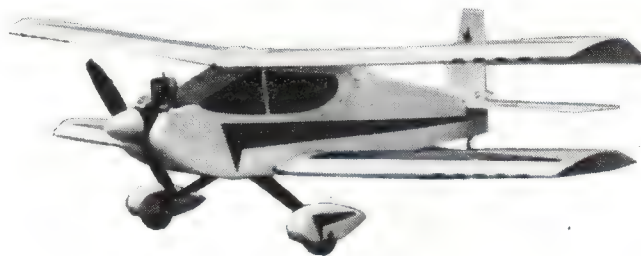
## MICHIGAN HOBBY HANGAR

### MISS VINTAGE



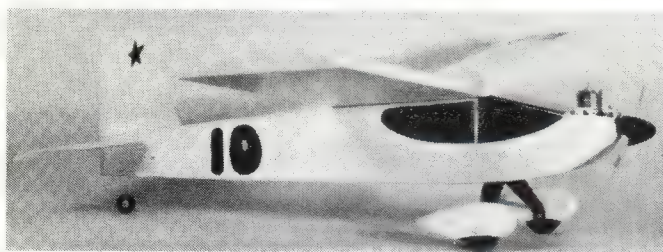
A realistic oldy for .25 to .35 engines. Designed to look complicated and yet easy to build. A slow easy flying aircraft that really attracts attention!

### QUICKIE BIPE



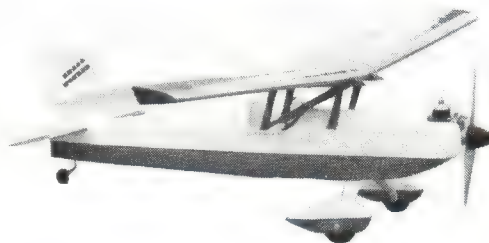
A .15 to .19 sized 3 channel cabin bipe that builds fast is super stable and fun to fly. Wind penetration is excellent. Maximum enjoyment on a minimum budget!

### QUICKIE



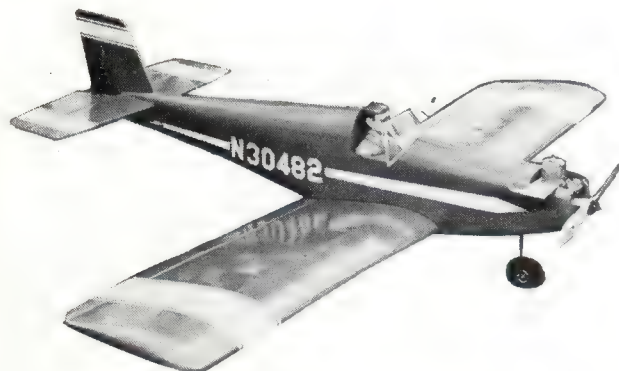
A Fred Reese design and a quarter midget trainer for .09 to .15 engines. Extremely fast building and capable of spectacular performance with a hot .15. Excellent choice for club racing and sport flying.

### SMALL WONDER



A realistic parasol EAA Homebuilt type aircraft. Designed for easy building and flying. Extremely docile with good ground handling and excellent wind penetration!

### NEGOTIATOR



A realistic Sport-Pattern ship for .35 to .45 engines. The Negotiator will suit your flying needs as well as do it with a model that looks like an Airplane!

### SPECIFICATIONS

<u>KIT</u>	<u>WING SPAN</u>	<u>WING CHORD</u>	<u>SQ. IN. AREA</u>	<u>FUSELAGE LENGTH</u>	<u># OF CHANNELS</u>	<u>ENGINE SIZE</u>	<u>FLYING WEIGHT</u>
Miss Vintage	59"	11½"	560	45"	4	.25-.35	4-4½ lbs.
Quickie BiPe	38"	6-3/8"	460	27"	3	.15-.19	2-3/4 lbs.
Small Wonder	46"	7"	320	28"	3	.09-.15	2½ lbs.
Quickie	38"	8"	300	27"	3	.09-.15	2½ lbs.
Negotiator	54"		575	42"	4	.35-.45	4½-5 lbs.

Michigan Hobby Hangar is exclusively an R/C Kit manufacturer. We are model builders ourselves and know the problems modelers have. These kits are engineered to put the FUN back in R/C flying! All Michigan Hobby Hangar kits feature quality Sig balsa, aircraft plywood, and spruce and all parts are band sawn and hand sanded. A complete building and flying manual comes with each kit and all kits are designed to build fast and fly well. A super hardware pak is included in all kits. pushrods, clevises, control horns, landing gear, hinges plus much much more are included for your convenience.

MHH72C00	MICHIGAN HOBBY QUICKIE BIPE	41.95	31.45	66
MHH72C01	MICHIGAN HOBBY QUICKIE	31.95	23.95	66
MHH72C02	MICHIGAN HOBBY SMALL WONDER	41.95	31.45	66
MHH73C00	MICHIGAN HOBBY MISS VINTAGE	61.95	44.95	66
MHH73C01	MICHIGAN HOBBY NEGOTIATOR	61.95	44.95	66



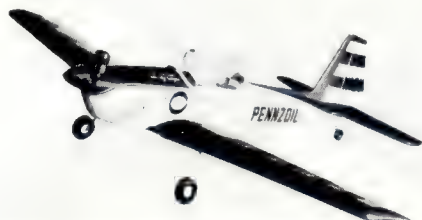
## MIDWEST



### CARDINAL

All molded foam A.R.F. for .049-.15 and one to four channel radio. 46" span, ideal beginner's model. Quick builder, dense foam gives robust model.

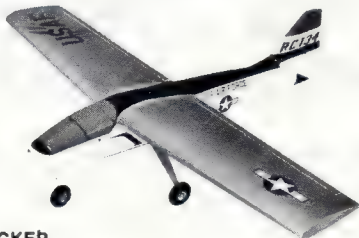
Kit No. 125



### SUPER CHIPMUNK

A.R.F. injection molded foam. Engines .10 to .19. Wing Span 46 inches. Three Channels: Aileron, Elevator Engine Throttle. Four Channels: Rudder, Elevator, Engine Throttle and Ailerons. Complete plans, with step-by-step illustrations.

Kit No. 126



### ATTACKER

Attacker - all-molded styrofoam R/C airplane that goes together fast and gets you into the fun of flying sooner. It's a rugged breed and can be a great sport plane or an easy-to-fly advanced trainer. The shoulder-winged Attacker has a big 48" wing with an area of 430 sq. in. It can be powered from a .19 to .35 engine and it is capable of performing most of the AMA pattern maneuvers easily. The kit contains building materials, illustrated step-by-step plans and a complete hardware package. All you need is glue, pins, knife, sandpaper, covering material and a radio. For 4 channel radio.

Kit No. 134



### DAS LITTLE STIK

Wing Span 46 inches. Engine Sizes .19 to .23. An ultra simple multi channel trainer by Larry Leonard and Bud Anders.

Kit No. 122

### SWEET STIK

Wing Span 54 inches. Engine Sizes .19 to .45. Larger version of the even popular Little Stik.

Kit No. 128



### TRI SQUIRE

Wing Span 52-1/2 inches. Engine Sizes .09 to .19. Intermediate: This stable flyer is an ideal multi trainer. The perfect step up from rudder only models.

Kit No. 106

### LIL TRI SQUIRE

Wing Span 40 inches. Clean, functional lines. Simplicity of construction. Top quality material and prefabrication. Light enough for escapement flying yet roomy enough for .099.

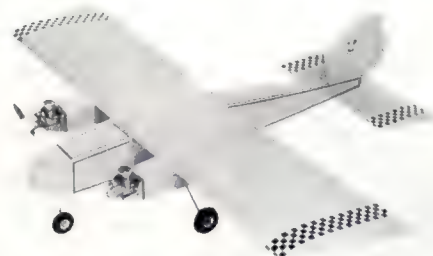
Kit No. 109



### NICK ZIROLI'S HEINKEL 162

Wing Span 56 inches. Engine .40 with Axiflo RK-40. Radio 4 Channel. The perfect companion to Axiflo RK-40. Scaled after Germany's HE-162, the Heinkel gives you the flight performance you want. Kit consists of balsa wood fuselage and empennage. Foam core wing and balsa covering material. Vacuum formed canopy, preformed landing gear, authentic decal sheet, and micro-cut balsa wood. This kit is not for the novice. If you like to build, you'll love the results! Truly a unique looking aircraft that you'll be proud of. (AXIFLO RK-40 IS NOT INCLUDED IN KIT)

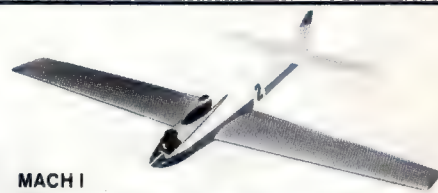
Kit No. 142



### TWIN STIK TRAINER

Wing Span 54 inches. Engines -2-.19-.30. Radio 4 Channel. Here's a twin that will get you in the air fast. The Twin Stik Trainer can be flown with -2-.19-.30 size engines. Single engine performance is exceptional. The kit contains hardware including lightweight aluminum engine mounts & nylon blocks. All wood construction featuring micro-cut balsa.

Kit No. 143



### MACH I

Wing Span 62", .60 cu. in. motors. Competition "pattern" airplane with impressive wins record. Uses four channel radio. Retracts optional.

Kit No. 127



### CARDINAL SQUIRE

Wing Span 73 inches. Engine Sizes .40 to .60. Foam wing and stabilizer cores, balsa covered. Balsa and plywood fuselage - die cut parts. Tough vacuum formed plastic engine cowling. Vacuum formed front and rear windshields. Vacuum formed wing fairings - no tricky carving. Complete hardware pack of fittings and fasteners. Full size completely illustrated plan with step-by-step instructions.

Kit No. 129



### STRIKEMASTER

Wing Span 55 inches. Engine Sizes .19 to .40. Foam wing cores, balsa covering supplied. Balsa and plywood fuselage all die cut. Balsa sheet fin and stabilizer, machine cut. All fittings, hardware and formed wire parts supplied. Full size, logical, completely illustrated plan.

Kit No. 130



### PITTS SPECIAL

Wing Span 48 inches. Engine Sizes .40 to .60 cu. in. All balsa and ply parts die or machine cut, with pieces for each wing, fuselage and hardware separately packaged and labeled. Comprehensive hardware package. Ready formed wire parts. Moulded crystal clear canopy for color scheme. Fuel proof decal sheet.

Kit No. 131

All Midwest kits are designed so you can build and fly the very best in RC! Midwest kits only select grades of presanded and pre-cut hardwood and balsa - wood that really fits. And Midwest's fast-to-finish, faster-to-fly foam plane kits are packed with that same care and quality. Kit plans are clear, illustrated and easy to read. Many Midwest kits also include hardware and accessories packages and finishing decals. That's why each Midwest kit goes together quickly and easily.

See page 68 for prices and stock numbers.



## MIDWEST

### The Only Stand-Off Scale 1/2A Jet

Midwest's Douglas A4D-1 Skyhawk is an all-foam kit that's inexpensive and easy to build.

A good, proven flyer designed for realistic jet flight, Midwest's Skyhawk is the latest in a great line of ARF (Almost Ready to Fly) foam kits.

The Skyhawk is the economical way to fly ducted fans. This kit takes 1/2 A-sized TD engines and is designed for Midwest RK-049 Axiflo. The kit comes complete with all-foam pieces, a vacuum formed canopy, a comprehensive hardware package and a large, full color sheet of authentic decals for a stand-off scale finish.

### All-Foam Ducted Fan Skyhawk

#### SPECIFICATIONS:

Wing Span:	30 inches
Wing Area:	215 sq. inches
Weight:	27 oz.
Engines:	.049 - .051 (Cox TD)
Radio:	2 Channel (except brick-type)

KIT NO. 139

Prototype painted with  
Styromate Sealer  
and  
RS Perfect Paint

(ducted fan  
not included)



### NEW "LIVE WIRE" Champion Mark III

Meet the plane that trained today's experts.

Ask today's R/C experts what their idea of a great R/C trainer is. Chances are they'll tell you Hal deBolt's "Champ".

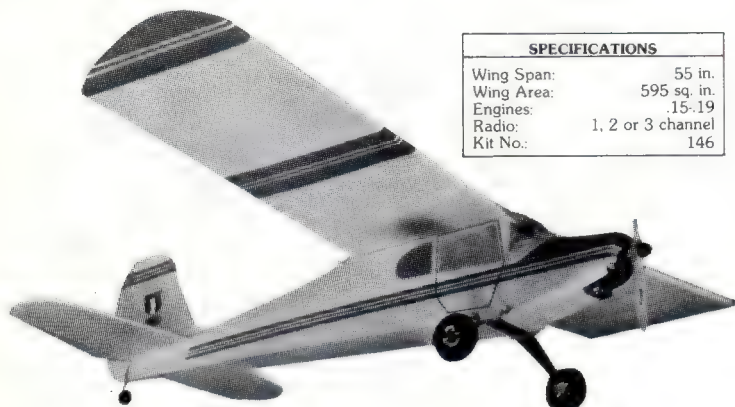
The Champ was first kitted by deBolt in 1954. Later he re-engineered it as a quick build kit. And time proved the Champ to be one of the all-time, best-ever R/C trainers.

Now, Midwest and deBolt, working as a team have made the "Champ" better than ever.

With Midwest microcut quality throughout, and solid new deBolt engineering, the new Live Wire Champion Mark III is ready for you.

Designed for one, two or three channel operation, this new kit in the Midwest line-up takes .15-.19 engines. The 55-inch wing Champ can be built with tricycle or scale tail-dragger gear.

This stand-off scale model kit comes complete with all die-cut balsa and hardwood parts, pre-shaped rudder, elevator, leading and trailing edge. The kit also includes a hardware package, detailed construction prints, complete building, finishing and flying instructions and a full-color decal sheet.



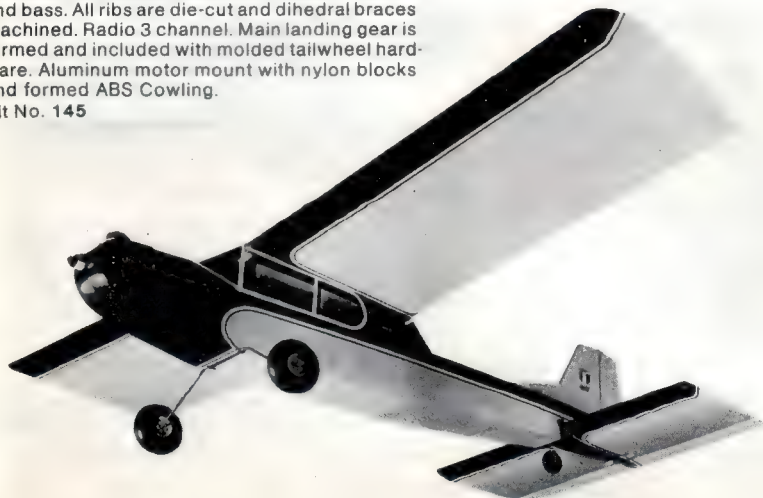
#### SPECIFICATIONS

Wing Span:	55 in.
Wing Area:	595 sq. in.
Engines:	.15-.19
Radio:	1, 2 or 3 channel
Kit No.:	146

#### SUPER ESQUIRE

Wing Span 80 inches. Engine Sizes .40 to .60. Kit features include Micro-Cut Balsa, plywood and bass. All ribs are die-cut and dihedral braces machined. Radio 3 channel. Main landing gear is formed and included with molded tailwheel hardware. Aluminum motor mount with nylon blocks and formed ABS Cowling.

Kit No. 145

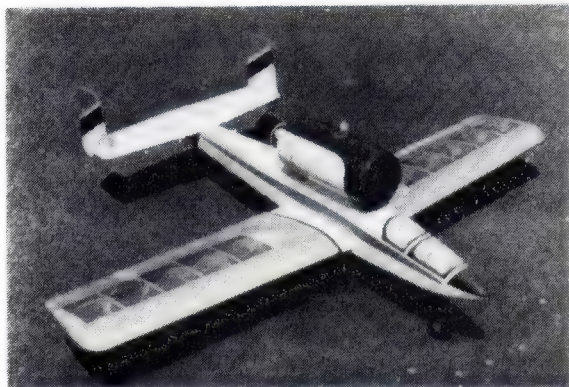


MID72106	MIDWEST #106 TRI SQUIRE	39.95	29.95	67
MID72109	MIDWEST #109 LIL TRI SQUIRE	26.95	19.95	67
MID72122	MIDWEST #122 LITTLE STIK	35.95	24.95	67
MID72125	MIDWEST #125 CARDINAL ARF	38.95	26.95	67
MID72126	MIDWEST #126 SUPER CHIPMUNK	39.95	27.95	67
MID72139	MIDWEST #139 1/2A A4C SKYHAWK	49.00	30.00	67
MID72146	MIDWEST #146 LIVEWIRE CHAMP	46.95	32.95	68
MID73128	MIDWEST #128 SWEET STIK	46.95	32.95	67
MID73130	MIDWEST #130 STRIKEMASTER	80.95	56.65	67
MID73134	MIDWEST #134 ATTACKER	47.95	33.55	67
MID73142	MIDWEST #142 HEINKEL 162	85.95	64.45	67
MID73143	MIDWEST #143 TWIN STIK TRAINER	49.95	35.95	67
MID74127	MIDWEST #127 MACH 1	94.95	69.95	67
MID74129	MIDWEST #129 CARDINAL SQUIRE	90.95	66.95	67
MID74131	MIDWEST #131 PITTS SPECIAL	110.00	79.95	67
MID74145	MIDWEST #145 SUPER ESQUIRE	94.95	69.95	68



## MIDWEST

### Jetster 20 48" Span Ducted Fan Sport Flier



#### EASY TO BUILD • FUN TO FLY

The Jetster 20 was designed to introduce today's R/C modelers into the exciting experience of flying ducted fan models. Previous ducted fan models have been scale designs requiring advanced building and flying skills.

Every effort has been made to keep the Jetster 20 simple. The pod mounted fan is uncomplicated and accessible—a feature not common to most ducted fan designs.

#### A PERFECT COMBINATION

That's because the Axiflo RK-20B is entirely molded. You won't spend a lot of time building both a fan and an airplane.

You'll assemble the fan, build and cover the airplane—and spend more of your time flying.

#### GOOD PERFORMANCE

Using today's powerful .20 cu. in. engines, the Jetster 20 will fly off of both paved runways and grass fields. It is very maneuverable—you'll love flying your Jetster 20.

#### KIT CONTENTS

- The finest Midwest Micro-Cut Balsa
- Selected hardwood and aircraft plywood parts
- Cleanly die-cut parts
- Molded foam inlet cowl and plywood fan shroud
- Precisely shaped and machined parts
- Large plan sheet
- Building, finishing and flying instructions
- Formed landing gear wire
- Comprehensive Hardware Package including: fasteners, hinges, nylon wing bolts, steerable nose gear and aileron linkage

- **WING AREA—430 SQ. IN.**
- **POWER—.20 CU. IN.**
- with Axiflo RK-20B (not included)

Requires a 4 ch. radio

**KIT NO. 149**

### CLIPPED-WING TAYLORCRAFT



#### "CLIPPED-WING" TAYLORCRAFT R/C AEROBATIC TRAINER A Fabulous Design-Engineered "Quick-Build" Kit

#### A Great Aircraft

The son of the immortal "J-3 Cub" is the everlasting "Taylorcraft". When Mr. Taylor advanced from the "J-3", he applied all the lessons learned with it to his new superior design, affectionately known as the "Flat Wing" Taylorcraft. Some 40 years later, this excellent performing aircraft is still in production!

Along the way pilots have appreciated its performance and it has even proven to be an outstanding design for aerobatics. Such great aerobatic pilots as "Duane Cole", found that by "clipping the wings" aerobatic flight became even finer. So much so that the "Clipped Wing T-Craft" was national aerobatic Champion for several years!

#### Deluxe Kit

The T-Craft kit is an outstanding value for today's R/C modeler. The kit features many preshaped parts that greatly reduce building time. The wing is accurately built by using the wing saddle jigs provided. Fuselage construction is straightforward.

Full size plans with illustrations clearly show the proper building sequence. The molded plastic parts are another timesaver—also adding greatly to the life of your T-Craft. The hardware package contains all fasteners and fittings required for building. We hope you will ENJOY this fine T-Craft kit.

#### Thorough Instruction Booklet

The instruction booklet, an exclusive Live Wire feature, will assist you in building your T-Craft. It contains explicit instructions that enable you to quickly and accurately build a model you'll be proud of. Areas covered include building, covering and finishing, equipment installation, proper pre-flight procedures, test flying, and a special section on learning to fly Aerobatics.

A centerspread shows how to duplicate Duane Cole's color scheme and how to detail your T-Craft with the addition of wing struts.

#### Kit Contents

- Precisely machined and shaped parts of the finest Midwest Micro-Cut balsa.
- Cleanly die-cut parts.
- Machined Plywood Firewall.
- Tough molded one piece ABS cowl.
- Vacuum formed clear plastic windshield.
- Durable molded ABS wheel pants.
- Preformed Heavy Duty Aluminum Main Landing Gear.
- Aluminum Engine mount with Glass Nylon Motor Mount Blocks.
- Comprehensive hardware package containing: fasteners, hinges, aileron linkage, control horns, push-rod wire, clevises.
- Full size plan sheet.
- Thorough Instruction Manual.

Requires a 4 ch. radio

**KIT NO.  
147**



#### PATTERN MASTER

**PIPER J-3 CUB — #135 — NEW**  
Wing Span — 48" Area — 300 Sq. In.  
Engine — .09-.15  
Requires a 1-4 ch. radio  
Kit Features: — Easy Assembly — Excellent 1st Trainer Companion to the "Cardinal".

Features all molded foam components for fast assembly; clearly written and illustrated plans; hardware package contains motor mount, formed landing gear, decals and all needed items. Proven performance.

### ARF MODELS (Almost Ready to Fly)



**STEP 3  
PATTERN MASTER — #148 — NEW  
SIMPLIFIED PATTERN TRAINER**  
Wing Span — 60"  
Area — 720 Sq. In.  
Engine — .35-.49  
Requires a 4 ch. radio  
Kit Features: — The Newcomer's Low Wing Transition Pattern Trainer. Tri-cycle Gear, Molded Canopy.

#### PIPER J-3 CUB

Feature finished precision machined and die-cut parts, full-size illustrated plans, comprehensive instruction manual—A "Live Wire" Exclusive, complete hardware package and all wood designs. Specifically developed for performance and assembly methods.

#### BEERCAT



**STEP 4  
BEERCAT — #150 — NEW  
REALISTIC SPORT BIPE**  
Wing Span — 47"  
Area — 840 Sq. In.  
Engine — .40-.49  
Requires a 4 ch. radio  
Kit Features: — Newcomer's Introduction to Biplanes. Molded Cowl & Wheel Pants.

MID72149	MIDWEST #149 JETSTER 20	54.95	41.95	69
MID72135	MIDWEST #135 PIPER J-3 CUB	PRICE UNAVAILABLE AT PRESS TIME		69
MID73146	MIDWEST #147 TAYLORCRAFT	64.95	45.95	69
MID73148	MIDWEST #148 PATTERN MASTER	64.95	45.95	69
MID73150	MIDWEST #150 BEERCAT BIPE	PRICE UNAVAILABLE AT PRESS TIME		69

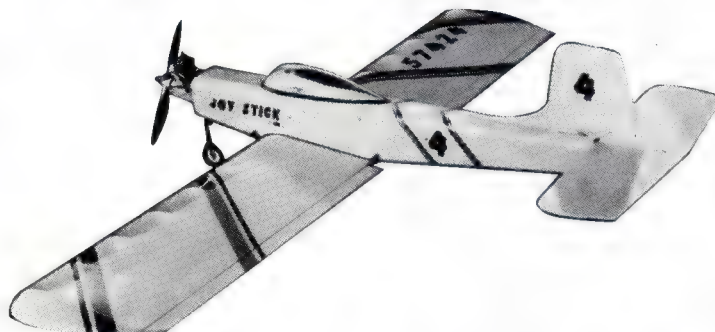


## MILE HIGH MODELS

# SUPER JOY STICK

THIS KIT CONTAINS THE MOST COMPLETE HARDWARE PACKAGE AND FINEST BALSA OF ANY ON THE MARKET. IT IS A PRECISION MACHINE CUT KIT DESIGNED FOR THE FAST BUILDING, STRENGTH AND PERFORMANCE EVERY SPORT FLIER LOOKS FOR IN THE PLANE HE FLIES YET A NOVICE CAN FLY AND LAND THE SUPER JOY STICK LIKE A PRO. I AM CERTAIN YOU WILL BE ENTIRELY SATISFIED WITH THE SUPER JOY STICK.

*Rich L. Rozelle*



### SPECIFICATIONS:

ENGINE: .15 - .25  
SPAN: 46" - 15"  
AREA: 405 sq. in.  
LENGTH: 33-1/2"  
WEIGHT: 40-44 oz.  
RADIO: 4 ch.

# A NEW BREED OF HALF-A JOY STICK

### FEATURES:

TOP QUALITY BALSA  
PRECISION CUT PARTS  
FORMED LANDING GEAR  
COMPLETE HARDWARE  
PRE-CUT PLY & HARDWOOD  
FAST-STRONG CONSTRUCTION  
CANOPY & DECAL  
INSTRUCTION BOOK & PLANS



### SPORT PYLON OR TRAINER

### SPECIFICATIONS:

ENGINE: TEE-DEE .049 - .09  
SPAN: 38-1/2" - 15.5"  
AREA: 266 SQ. IN.  
LENGTH: 29-7/8"  
WEIGHT: 22-28 OZ.  
RADIO FUNCTIONS: 2 CH.  
3 CH. WITH THROTTLE

# HORNET



1/2 A FLYING AT ITS BEST THAT'S WHAT YOU GET WHEN YOU BUILD THE HORNET. PRECISION CUT QUALITY BALSA & PLY WITH COMPLETE HARDWARE RIGHT DOWN TO THE .049 ENGINE MOUNT MAKE THE HORNET ONE OF THE BEST VALUES FOR YOUR MODELING DOLLAR.



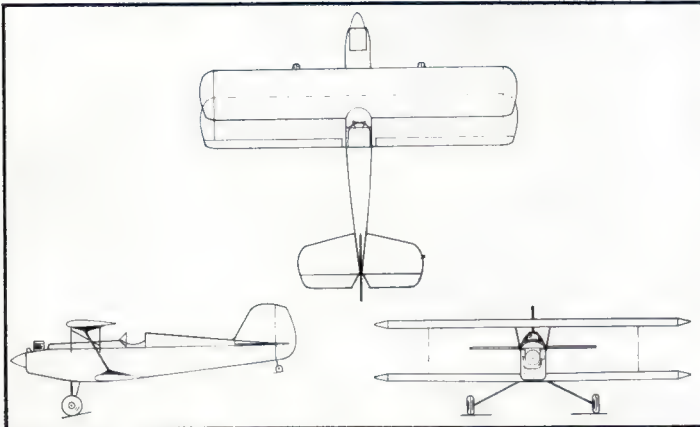
### P-68 VICTOR

This 42" span 1/2A Twin is for two .049 or .051 Cox engines. It is stand off scale and flies great on one engine. This all balsa kit includes full hardware.

MHM72001	MILE HIGH MODELS JOY STICK	18.95	15.95	70
MHM72002	MILE HIGH MDLS SUPER JOY STICK	36.95	25.95	70
MHM72003	MILE HIGH MODELS 1/2 A HORNET	20.95	16.75	70
MHM72068	MILE HIGH MODELS P-68 TWIN C49	36.95	25.95	70



# NORTHEAST AERODYNAMICS



## BEL-AIR .40

The Train-Air .40 is not "just another trainer"! This innovative trainer was designed to correct the problems and inadequacies seen in other trainers on the market.

With the standard .40 engine as powerful as it is today, the need for a larger and more stable aircraft was seen. The Train-Air fills the bill! It's the largest high-wing trainer in its engine class.

The Train-Air .40 is rugged enough to withstand basic flight training. Taxiing in the wind has always been a problem—not so with the Train-Air. Extra-wide track on the main gear along with stiffer wire makes this an ideal wind handler.

The Train-Air's other convenient features include: large radio compartment; radial engine mount; removable landing gear; optional removable fuel hatch; one-piece elevator; fuse sides slotted to locate every bulkhead; all machine cut parts; all balsa wing and fuse construction; minimum of parts to assemble; easy to read plans and instructions and semi-symmetrical airfoil with flat section and wing-jig holes for easy and accurate building.

The Train-Air's flying characteristics are just what is needed for the advancing beginner or the experienced pilot. With enough built-in stability for basic flight training, the Train-Air also goes beyond this with full aerobatic capabilities.

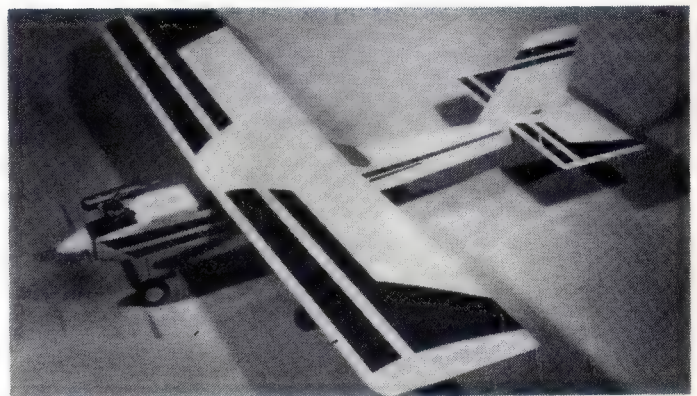
The need for a true .40 size sport biplane has now been filled! The Bel-Air .40, while having realistic looks, is the epitome of sport bi-planing.

Barnstorming with this economical aircraft is just fantastic!

Extra-wide landing gear eliminates wing-tip scrapes common to other designs.

This larger than average aircraft provides you with the smoothness required for easy ground handling and full aerobatic capabilities. Outstanding features of this kit include: bolt-on wings; plug-in cabane wires; all balsa wing and fuse construction; minimum of parts to assemble; fuse sides slotted for every bulkhead; easy to read plans and instructions; ultra-simple wing construction; semi-symmetrical airfoil with flat section and wing-jig holes for easy and accurate building and all machine cut parts.

The Bel-Air .40 is rugged enough to withstand barnstorming at its best. Requires a .40 size non-schneurle engine and a 4 channel radio. 45.5" wing span.



## TRAIN-AIR .40

The Sport-Air .40 is not "just another sport plane"! This exciting aircraft, while retaining the looks of a real plane, is an excellent fun-fly ship.

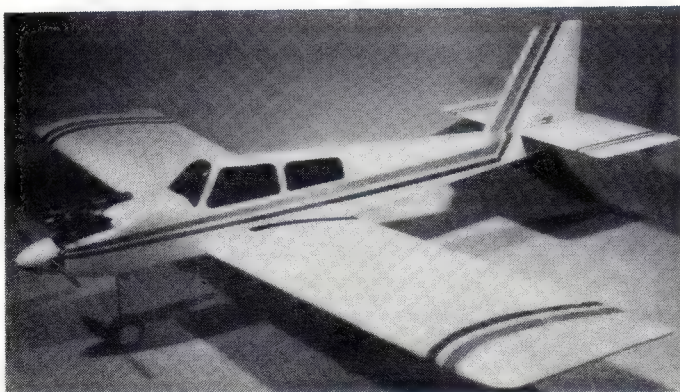
With the standard .40 engine as powerful as it is today, the need for a larger more docile aircraft was clearly noted. The Sport-Air .40 is the largest plane in its engine class.

Wide track landing gear provided makes windy day taxiing a breeze.

Other features of the Sport-Air .40 include: minimum number of parts to assemble; fuse sides slotted for every bulkhead; all balsa wing and fuse construction; one piece elevator; ample room for retracts; optional removable fuel hatch; semi-symmetrical airfoil with flat section and wing-jig holes for easy accurate building; easy to read plans and instructions; and all machine cut parts.

The Sport-Air .40 is rugged enough to withstand the rigors of basic training, but is also sophisticated enough for the most demanding expert.

58" wing span. Requires a .40 size non-schneurle engine and a 4 channel radio.



## SPORT-AIR .40

NCA73100	N.E. AERODYNAMICS TRAIN-AIR 40	52.95	39.95	71
NCA73200	N.E. AERODYNAMICS SPORT-AIR 40	57.95	43.95	71
NCA73300	N.E. AERODYNAMICS BEL-AIR 40	69.95	52.95	71



**MRC**

# MRC's Trainer Hawk II

## The most extraordinary RTF trainer ever made for under \$100



### POWER

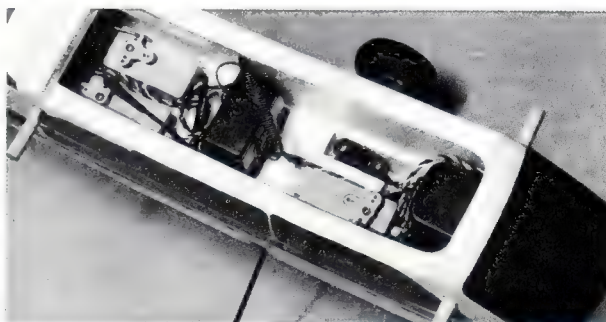
- Complete with a big .15 engine already installed. Three times the displacement of conventional R-T-F's with tiny .049 engines.
- Trainer Hawk II will loop, Cuban 8, Figure 8... you're in command of a real plane... not an underpowered toy. And, yet at the same time it's docile enough to trim out and fly hands off.

### READY-TO-FLY ... COMPLETE

- Factory installed bulkhead, fuel tubing, fuel tank, engine, hinges, control horns. The control rods for elevator, rudder and throttle are prebent.
- An hours work... and you'll be flying high
- Uses either two or three channel radio

### PERFORMANCE

- Realistic control through steerable nose gear for taxi and takeoff
- Throttle control... from idle to full power



Premolded compartments to hold and cushion servos, receiver, battery (radio not included) Control rods prebent.

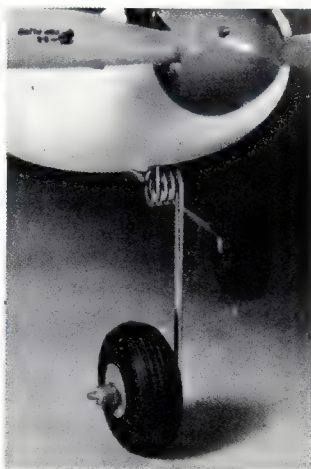
### BIG AND BEAUTIFUL

- Full 32" length, 48" wingspan
- Sleek, low density, pure white foam with lustrous red, black and white decal striping. Enough striping to customize.
- Add up the components and you'll find you can't even buy the parts for this price... let alone the workmanship and assembly time. Time you can now spend flying instead of building.

MRC's Trainer Hawk II... a trainer for the serious hobbyist... a pleasure for anyone who wants to fly.



Powerful throttle control .15 TV engine factory installed along with big fuel tank. Steerable nose gear for taxi, takeoff and landing.



MRC72C00 MRC RTF HAWK TRAINER W/ 15

\$99.95 \$83.25 72

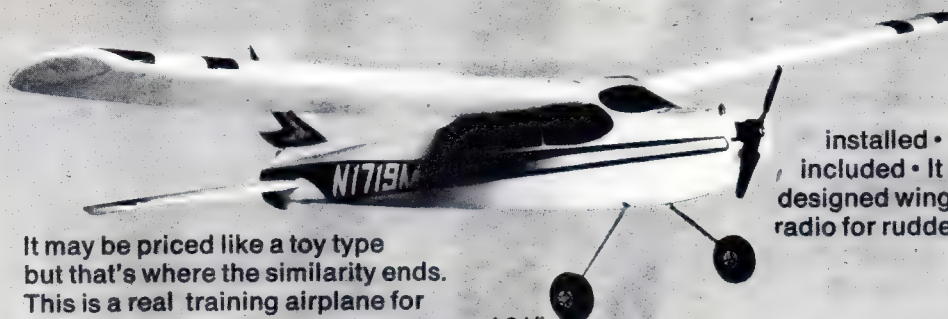


## MRC

### The MRC Eagle

A quality beginners plane that really flies ... stable and good looking

.049 Engine Factory Installed



It may be priced like a toy type but that's where the similarity ends. This is a real training airplane for the hobbyist with big 48" wingspan and 31" fuselage for slow stable flight ... just the ticket for the novice.

**Additional Features:**  
• Engine, engine mount, propeller, fuel tank, dowels, control rods, hinges and control horns factory installed • Tail dragger landing gear and decals included • It assembles in under an hour • Special designed wing for maximum stability • Two channel radio for rudder and elevator control recommended (not included).

MRC72010	MRC RTF EAGLE W/.049 ENGINE	74.95	61.95	73
MRC72020	MRC RTF CHIPMUNK W/ENYA .09 RC	114.95	91.95	73
MRC72030	MRC RTF MESSERSCHMITT W/ENY 09	119.95	95.95	73

### MRC's Messerschmitt (ME-109E)



A Magnificently Finished RTF Aerobatic 1/10 Scale Model Complete with Enya .09TV engine installed. This handsome WWII fighter with its outstanding camouflage-type paint job and prototypical decals gives the scale flier an exciting plane without having to spend the time and take the effort to build it. It features full 4-channel control, and scale tail dragger landing gear assembly. Engine is factory installed as are the prebent control rods. Fuel tank and dowels are also in place. Pilot figure is included. It sports a pre-molded cavity to accept radio equipment simply and easily.

### MRC's Dehavilland Chipmunk



Beautifully Finished, Ready-To-Fly Aerobatic 1/10th Scale Model. Complete With MRC Enya .09TV Engine Installed This exciting World War II trainer with its slick paint job and authentic decals gives the intermediate flier a gorgeous scale ship without the hassle of building. It comes complete with 3-channel controls. An aileron kit is included in the package so that ailerons can be added at your convenience. The engine is factory installed as are fuel tank, dowels, canopy, instrument panel, pilot, muffler, propeller, spinner, control horns, hinges, and control rods. Pre-molded cavities are provided to accept radio equipment with ease.

## MODEL DYNAMICS

### GRYPHON

AEROBATIC R/C SLOPE SOARING GLIDER  
RELIABLE • PROVEN DESIGN • STABLE

BUILDING TIME 12-18 HOURS

- ★ SELECTED Balsa
- ★ PRECISION MACHINED PARTS
- ★ SLOTTED LEADING & TRAILING EDGES
- ★ PARTS EASILY IDENTIFIED
- ★ BUILDS FLAT ON TABLE NO WING JIG NECESSARY
- ★ STEP-BY-STEP INSTRUCTIONS
- ★ ALL HARDWARE AND CANOPY

WING SPAN: 67 INCHES  
WING AREA: 965 SQ. INCHES  
LENGTH: 34 INCHES  
AIRBORNE WEIGHT: 2.5 LBS.  
RADIO EQUIPMENT: 2 CHANNELS  
ELEVON CONTROLS

Easy to Assemble  
Fun to Fly



**Flys Like a Powered Multi**  
AEROBATIC FLIGHT — SPINS  
INVERTED FLIGHT — ROLLS  
INSIDE-OUTSIDE LOOPS  
FLYS IN LOW-LIFT CONDITIONS  
EXCELLENT LOW SPEED CHARACTERISTICS

MOD71001 MODEL DYNAMICS GRYPHON

54.95 43.95 73



## NOSEN

### 102" SPAN BUD NOSEN TRAINER



- 102 inch span
- Flying weight 10 Lbs.
- 1500 square inch area
- 15 oz./ft. wing load
- Designed for .60 engines
- Preformed wire gear
- Machine & die cut parts
- Huge rolled plans
- Fast Assembly
- Necessary Hardware
- 3 or 4 channel radios required
- No foam or plastic

• Designed and Produced by Bud Nosen

After observing a large number of beginners (and a few old timers) in recent years, we noted they all had about the same problems or complaints in learning to fly. The models all seemed to fly too fast, respond too quickly, were usually overcontrolled and their small .60 inch size seemed to make it difficult to see what the model was doing at times. We think we have solved most of these problems with our 102 inch trainer. Recommended power is a .60 size engine - a size you can stay with for years. Take offs and landings are at a very low speed. Control response is slow and many mistakes go unnoticed. Knowing what your model is doing at any given time is much easier because of the large size. Most beginners would like a model that looks like a real plane, so we designed our trainer to look like a Cessna 150.

### 8' SPAN 1/3 SIZE STANDOFF SCALE 1933 GERE SPORT



- STANDOFF SCALE
- 96 1/2" SPAN TOP
- 90 1/2" SPAN BOTTOM
- FLYING WEIGHT 14.5 Lbs.
- 2790 SQUARE INCH AREA
- 12 oz. FT. WING LOAD
- .60 ENGINES REQUIRED
- PROOF OF SCALE 3 VIEWS
- MODEL IS 1/3 SIZE
- KIT IS ALL WOOD
- MACHINE and DIE CUT PARTS
- HUGE ROLLED PLANS
- 18 HOUR ASSEMBLY TIME
- NECESSARY HARDWARE
- FOUR CHANNEL RADIOS REQUIRED
- NO FOAM OR PLASTIC

• DESIGNED and PRODUCED by BUD NOSEN

A fine flying Standoff Scale Model of a highly successful Bi-Plane of the 30's. This is an all wood Kit that goes together fast. With its 12 oz. Wing Loading, it gets into the air in about 15 to 20 feet on a .60 size engine. Flying speed seems to be in the 15 to 20 M.P.H. range and when slowed down it is a breeze to land. Ultra simple wing construction with 1/32 ply webbing make this one really strong.

### 9' SPAN 1/4 SIZE STANDOFF SCALE "MR MULLIGAN"



- 108" Span
- 1575 Sq. inch wing
- .60 ENGINES & UP REQUIRED
- FLYING wt. 15 lbs.
- Machine Cut Parts
- Three Piece Wing

NO FOAM!

NO FOAM!

NO FOAM!

- 3 or 4 CHANNEL RADIO REQUIRED
- Huge Rolled Plans
- Fast Assembly
- Hardware
- Flies Like A Trainer

• Designed and Produced by BUD NOSEN

### 8-FOOT SPAN CURTISS JN-4D JENNY



- Standoff Scale
- 97.75" Span
- 1,790 square inch area
- Length - 60"
- .45 to .60 Engines required
- Flying Weight 9.75 Lbs.
- Scale 2.25" = 1'

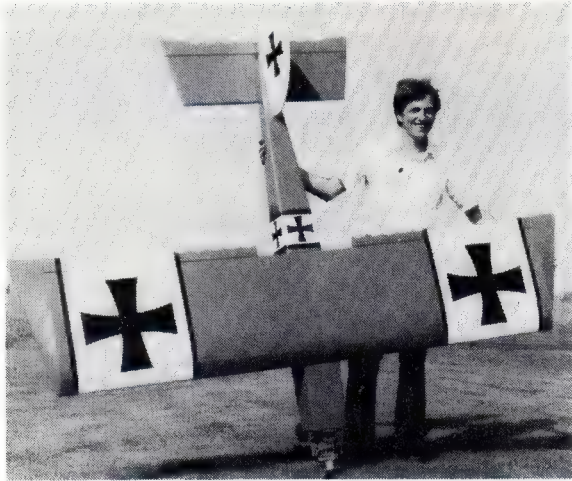
- Formed wire
- Kit is all wood, no foam or plastic
- Machine and Die Cut Parts
- Huge rolled Plans
- Necessary hardware
- Four channel Radios required
- Design by Ron Busch

An easy flying standoff scale model of one of the most popular biplanes of all times. A surprising performer, our proto-type models have flown very well in winds up to 25 M.P.H. Fly the Jenny for fun as shown, or go all out and add rigging and detail and you will have a serious competitor in standoff scale circles.



**NOSEN**

# BIG STIK



- 101" Wing span
- 1940 square inch area
- 18 Lbs. flying weight
- No foam or plastic
- Designed by Mike Smith and Don Anderson
- Fast assembly
- Necessary hardware
- 4 channel radio required
- Huge rolled plans
- Evra or Quadra power
- 36" Stab span
- 23" height
- 81" length
- Dural main gear
- Custom dual nose gear strut
- Machine and die cut parts

• Produced by BUD NOSEN MODELS

A 101 inch wing span version of Phil Kraft's famous Ugly Stik. Designed and stressed for engines up to two cubic inches. Internal strength is great enough to allow the use of most any covering material.

Construction of the model is all wood and kit design is with simple fast assembly in mind. Dural aluminum landing gear, custom double strut nose gear, and basic balsa over spruce with a light plywood former setup make for a strong durable model.

The Big Stik is capable of most stunts including inside and outside snaps, inside and outside square loops, spins, rolling circles, inverted eights and more.

Enjoy gas and oil economy with glo engine performance. Join the SUPER-SIZE model era with this fun sport aircraft.

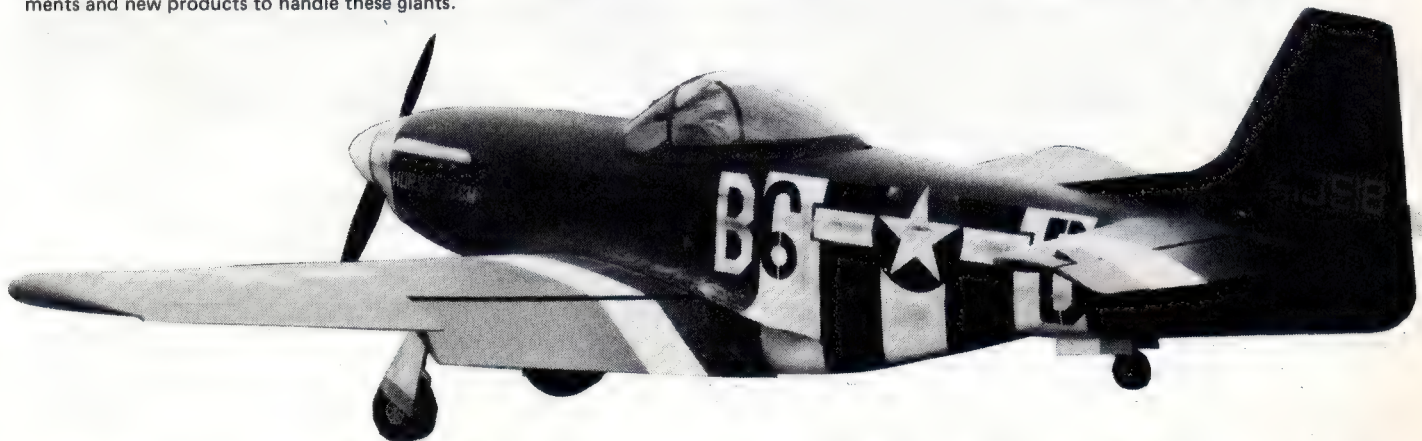
## QUARTER SCALE

It all started back in late 1973 when Bud Nosen came out with his first 1/4 scale Aeronca Champ. Tower immediately put it in the 1974 Catalog and acceptance wasn't all that overwhelming—but the seed was planted. And it has grown into the most current and exciting segment of our hobby.

1/4 scale, 1/3 scale, monster-sized, big mudders, or whatever you prefer to refer to them as, the large aircraft like Bud Nosen's are here to stay thanks to recent developments and new products to handle these giants.

*Bud Nosen's*  
**spectacular**

**102" P-51 D**



- Stand-off Scale
- 2.75" equals 1'
- 102" Span
- 16.5# flying wt.
- 1800 sq. in. wing
- 26 1/4" chord at root
- 4 channel radios required
- Designed for .60 engines with prop driver
- Very stable flyer
- Proof of scale 3 views
- Kit includes 21" canopy
- No foam or plastic
- 6" spinner is not included available direct only
- Huge rolled Plans
- Machine and die-cut parts
- Decals not included

NCS74005	BUD NOSEN MR. MULLIGAN - 9 FT	139.95	111.95	74
NOS74006	BUD NOSEN GERE SPORT BIPE-8 FT	129.95	103.95	74
NCS74007	BUD NOSEN JENNY - 8 FT	129.95	103.95	74
NCS74008	BUD NOSEN TRAINER 8.5 FT	79.95	63.95	74
NCS74009	BUD NOSEN P-51D - 8.5 FT	169.95	135.95	75
NOS74010	BUD NOSEN BIG STICK 8.5 FT	129.95	103.95	75



## NOSEN

### 10 FOOT SPAN 1/4 SIZE STANDOFF SCALE CESSNA 310 TWIN



- Fast Assembly
- .60 Engines REQUIRED
- 120" Span
- Huge Rolled Plans
- Hardware

NO FOAM!

- Flies Like A Trainer
- Three Piece Wing
- 18 lb. Flying Weight
- Machine Cut Parts
- Molded Cowl

• Designed and Produced by BUD NOSEN

An almost exact copy of CESSNA'S popular twin engine aircraft. Designed by BUD NOSEN, flight tested and modified to provide the smoothest flying model of its kind. Large lateral, wing, fin and horizontal stab areas make the loss of one engine non critical. Flown with twin .60's the 310 is as easy to handle as most trainers. Smooth easy take offs, gentle turns are built in characteristics of this big beauty!!!

### 9-FOOT SPAN PIPER CUB J-3



- Standoff Scale
- 9' Span
- 10.5 Lb. Flying Weight
- 1,800 Square Inches
- .60 Engines and up required
- Fast building
- Bud Nosen Balsa and Plywood

- Necessary Hardware
- Rolled Plans
- Formed wire
- No Foam!
- Formed ABS Cowl
- Machine and Die Cut Parts
- Decals not included

• Design by Ron Busch

Without a doubt the Piper Cub J-3 was the most popular light plane ever manufactured. Our 9' span J-3 is fast becoming one of the most popular kits ever produced. Its great popularity is due to ease of assembly, exceptional ground handling and superb performance in the air. Why not experience the thrill thousands of modelers the world over have enjoyed and move up to the BIG ONES.

### 9' SPAN 1/4 SIZE AERONCA "CHAMP" SUPER SIZE STANDOFF SCALE



- Super Fast Assembly
- .60 Engines and Up
- 3 or 4 Channel Radio
- Rolled Plans
- Hardware
- 105 1/2" Span

- 10 lb. All Upweight
- 1500 sq. in. Wing
- All Wood Construction
- Machine Cut Parts
- Designed and Produced by BUD NOSEN

Above prototype proved easy to fly, ground handling exceptional and takeoffs are a breeze. Touch and goes are something else.

NCS74001	BUD NOSEN AERONCA CHAMP - 9 FT	99.95	79.95	76
NCS74002	BUD NOSEN CESSNA 310 TWIN-10FT	169.95	135.95	76
NCS74003	BUD NOSEN CITABRIA - 9 FT	99.95	79.95	76
NCS74004	BUD NOSEN J-3 CUB - 9 FT	119.95	95.95	76

### 9' SPAN 1/4 SIZE CHAMPION CITABRIA



- 105 3/4" SPAN
- 1550 sq. inch wing
- 62 3/4" LONG
- FLYING WEIGHT 10 1/4 lbs.
- STRONG DURAL LANDING GEAR
- Machine Cut Parts

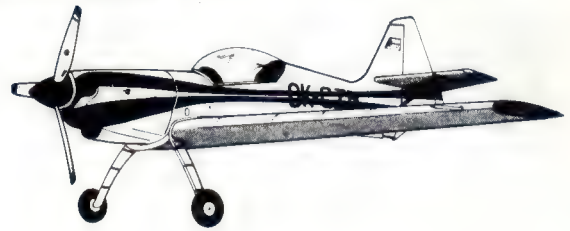
- 3 or 4 CHANNEL RADIO REQUIRED
- .60 Engines REQUIRED
- Fast Assembly
- Huge Rolled Plans
- Hardware
- Flies Like A Trainer
- Three Piece Wing

• Designed and Produced by BUD NOSEN



## OHIO SUPERSTAR ZLIN-Z50L

The model you have been waiting for! Meets Vegas specs. Foam wing and tail construction. Balsa fuselage. For .78-.90 twin engines. 80" wingspan. The nice thing about this model is the way it builds — fast and easy! Beautiful canopy pulled from heavy material.



OHS74000 OHIO SUPERSTAR ZLIN Z-50L .90

149.95 119.95

77

## ORLINE



## Fokker D VII

**Quick build up  
Kit OL781**

FOKKER DVII:

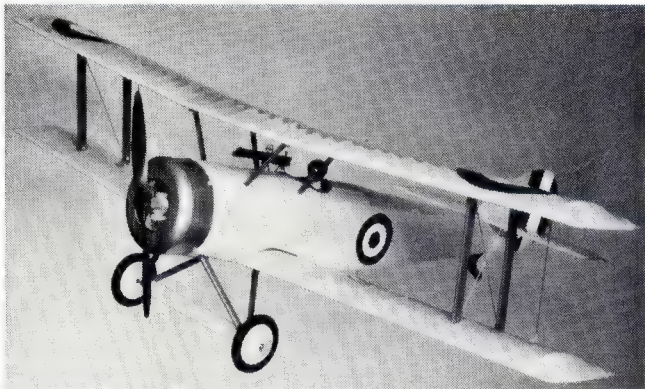
Engines .60

Wing span 72"

Wing area 1488 sq. in.

Weight 10 lbs.

4 channel radio required



## Sopwith Pup

**Quick build up  
Kit OL792**

SOPWITH PUP:

Engines .60

Wing span 67 1/2"

Wing area 1586 sq. in.

Weight 10 lbs.

4 channel radio required

Accessories include: 5" scale wheels • Spandau machine guns • Scale pilot • Self adhesive decals

Hardware package includes: Aluminium motor mounts • Pinned hinges • Snap-links • Control horns • Nylon bolts • Landing gear straps • Socket head bolts and blind nuts.

First in a series of vintage aircraft. Prototypes flew great with a K&B .61 and 14-4 prop.

Kit features: 2 full size rolled plans (wing and fuselage) • Step by step instruction manual with photographs • Quality die stamped balsa parts • Machine cut hardwood parts • Machine cut and pre-sanded plywood parts • Pre-formed balsa blocks • Pre-formed leading and trailing edges • Heavy duty one piece ABS cowl • Pre-formed landing gear and cabins.

# Semi-big fun scale

ORL74C00 ORLINE OL781 FOKKER D-VII  
ORL74100 ORLINE OL792 SOPWITH PUP

97.50 72.95 77  
119.50 85.95 77



# The DEWEYVILLE SPECIAL "Trainer"

- \* 74" Wing Span
- \* Total Wing Area 864 Sq. In. Plus Lifting Stab
- \* New Design For Wing And Aileron Permits One Night Assembly
- \* Quick Construction Box Fuselage with Die-Cut Formers



- ☐ Fool proof wing set-up without the use of jigs is accomplished with our pre-bent one piece cabanes and V struts that fit into pre-dadoed and pre-drilled hardwood blocks, thus eliminating any special alignment.
- ☐ With a .40 size engine and ailerons set at minimum throw, the plane is a very docile and stable trainer.
- ☐ With a .60 size engine and ailerons set at maximum throw, the plane handles like a pattern ship and will deliver thrills to the most advanced R/C flyer.

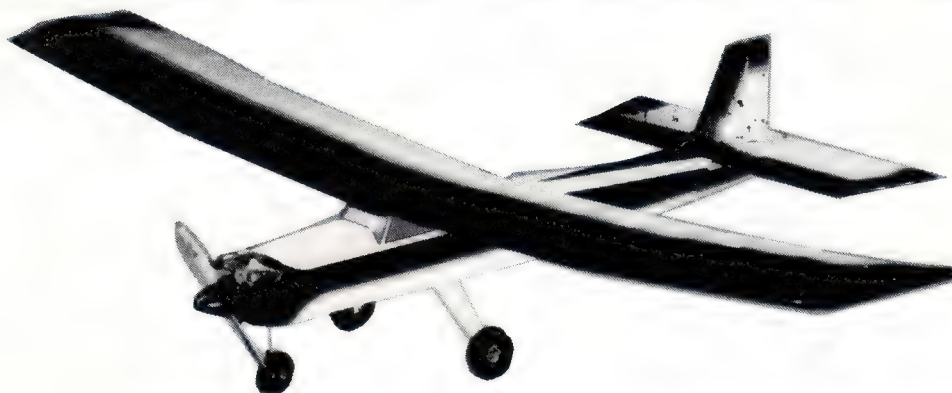
## KIT ALSO INCLUDES

- One Piece ABS Cowling
- .040 Smoke Tinted Acetate Canopy
- Aluminum Landing Gear Bracket
- Full Sized Rolled Plans
- Illustrated Construction Manual
- Machine Cut Plywood, Hardwood & Balsa Parts
- Quality Hardware Package
- All Necessary Sheetmetal

CRL74200 CRLINE OL793 DEWEYVILLE SPEC.

69.50 51.95 78

# POLYCRAFT



*A Polyhedral 72" Wing With Ailerons*

**Engine Size .25 to .40**  
**4 Channel Radio Req'd.**  
**Weight 5 1/2 Lbs.**  
**Wing Area 800 Sq. In.**

**KIT FEATURES:** Full size rolled plans • Step-by-step instruction manual with photographs • Quality die-stamped balsa parts • Pre-formed leading edges • Aluminum landing gear bracket

**Hardware Package Includes:** Pinned hinges • Control horns • Nylon bolts • Socket head bolts • Blind nuts • Steerable nose gear.

CRL73806 CRLINE OL806 POLYCRAFT

59.95 45.95 78



**ORLINE**

# VICTORY STICK

## R/C SPORT TRAINER

**Quick build-up**

**Engine size .25-.45**

**Wing span 56"**

**4-channel radio required**

**KIT OL804**

**KIT FEATURES:** Full size rolled plans • Step-by-step instruction manual with photographs • Quality die-stamped balsa parts • Pre-formed leading edges • Aluminum landing gear bracket • Self-adhesive decals.

**Hardware Package Includes:** Pinned hinges • Control horns • Nylon bolts • Socket head bolts • Blind nuts • Aileron torque rods • Steerable nose gear.

CRL73804 ORLINE OL804 VICTORY STICK

49.50 37.95 79



# LIBERTY STICK

## R/C SPORT TRAINER

**Quick build-up**

**Engine size .45-.61**

**Wing span 60"**

**4-channel radio required**

**KIT OL805**

**KIT FEATURES:** Full-size rolled plans • Step-by-step instruction manual with photographs • Quality die-stamped balsa parts • Pre-formed leading edges • Aluminum landing gear bracket • Self-adhesive decals.

**Hardware Package Includes:** Pinned hinges • Control horns • Nylon bolts • Socket head bolts • Blind nuts • Aileron torque rods • Steerable nose gear.

CRL74805 ORLINE OL805 LIBERTY STICK

59.50 45.95 79





## PICA

# SPITFIRE

Still the best combination of looks & performance you can buy. Nobody ever designed a more elegant ship than the Spitfire. The model flies superbly and has won countless standoff scale contests. The standard kit builds into a Mk. 9. Plan includes details for other Marks, like the beautiful Mk. 22.

**Kit features:** Machined and diecut balsa, formed LG, nylon fittings, metal parts & mouldings. Two full-size plans: complete radio & retract gear installation shown. Isometric diagram & illustrated instructions make building easy and fun. Six-color accurate decals. Span: 65", Area: 714 Sq", 4 to 6 channel, Engine: .40 to .60



2657 N.E. 188th Street  
Miami, Florida 33180  
Telephone 935-1436

# T28-B

Plenty of dihedral (7°) for lateral stability. Radial cowl prevents speed buildup in a dive. Large stabilizer and long tail moment give wide CG position tolerance. Special airfoil and washout maintain stability down to a very low speed. Tricycle LG makes good rough-ground handling and easy landings. Bright color schemes help pilot orientation in flight. Large flaps incorporated in basic design. Over 700 sq. ins. for light wing loading even when loaded with options.

**Kit features:** Our now-famous detailed plans (2 sets) showing flaps, retracts, RC equipment, etc. Beautiful 3-sheet detailed fuelproof decals. Machined & diecut balsa, formed wire Nylon fittings (flap hardware included), canopy and the best cowling ever put in a kit. Span: 65", Area: 710 sq.", 4 to 6 channel, Engine: .60



INNOVATIONS  
IN MODELING

2657 N.E. 188th Street  
Miami, Florida 33180  
Telephone 935-1436

# FW 190 D-9

The qualities that make a model a NATS winner are the same ones that Sunday sport-scale fliers look for. Exceptional appearance to start with, of course. The FW 190's stark and sinister shape has always excited modelers. But even more important are friendly flying qualities. Our designs have always emphasized safety at low speeds, and the FW 190 has inherited the ability to fly from 80-90 mph right down to a near-hover for landing. The wide-track gear makes it an ideal first "tail-dragger."

**Kit features:** Full-size plans showing radio and retracting gear installation. Color schemes (and decals) for THREE different FW 190's. Separate 16-page instruction booklet with cutaway diagrams and in-depth flying hints. Diecut and machined balsa, nylon fittings, formed wire cowl, canopy etc. Span 65" Area 730 Sq. 4 to 6 channel, Engine .60



2657 N.E. 188th Street  
Miami, Florida 33180  
Telephone 935-1436

PIC74001 PICA RC1 SPITFIRE  
PIC74002 PICA RC2 T-28B  
PIC74003 PICA RC3 FOCKE WULF 190

99.95 72.95 80  
99.95 72.95 80  
99.95 72.95 80



PICA

# THE WACO

We chose the Waco F-3 as our biplane flagship because it best represents the "Golden Era" of the 1930's, when flying was an adventure. Add to this, easy, snag-free building and safe, gentle flying—the result of the thorough kit engineering and careful prototype development that are features of all Platt Kits—and you have a satisfying building and flying experience ahead of you. **Kit features:** Top-quality diecut and machined balsa and plywood. Full size plans. Separate instruction book with isometrics. Decals. Injection-moulded (Not vacuum-formed) plastic cowl, cow blisters, and wheel pants. All required nylon fittings. Formed wire landing gear & struts. Span: 60" Area: 950 Sq." 4 to 6 channel, Engine: good .40 to .60



2657 N.E. 188th Street  
Miami, Florida 33180  
Telephone 935-1436



# CESSNA 182

Perhaps you need something a bit out-of-the ordinary for scale competition? Our Cessna 182 is a big, stable airplane; ideal as a scale trainer on only a .40 engine. Put a .60 under the cowl and fly circles around the competition. The semi-symmetrical airfoil makes the 182 groove, yet it's as docile as a kitten. For total scale realism, add the optional flaps. Trike gear for pleasant ground handling. The kit is all-balsa, with lots of hardware and molded parts for speedy construction. The clear plans and special illustrated construction booklet make it a kit that anyone can build. **Kit features:** Span: 72", Area: 702 Sq.", 5-7 lbs. flying weight, 4 channel, Power: .40 to .60



2657 N.E. 188th Street  
Miami, Florida 33180  
Telephone 935-1436



# DUELLIST 2/40

Wing span 67"  
Wing chord 14"  
Total wing area 795 sq."  
Fuselage length 54"  
Stabilizer span 27"  
Vertical fin 10 1/4"  
Rec. engine 23-40  
Gear: Fixed or retract  
Channels: 4 (5 w/ret.)  
Control functions:  
Ailerons, Elevator,  
Throttle, Rudder  
Construction: Balsa  
Plan sizes: 35"x67"  
Instruction manual  
and construction  
photos included.  
Kit includes: Die cut  
balsa shaped  
parts, hardwood,  
plywood, aileron  
torque rods,  
hardware  
Flying weight  
6-8 lbs

The Duellist 2/40 has been designed as an easy-to-fly and safe handling twin engined R.C. model. Combining elegant appearance with simple structure, it's ideal for the modeler who has progressed through the usual trainers and pattern or low wing sport ships. As such, it offers a further level of enjoyment in the R.C. hobby, and a new accomplishment in flying skills to the builder.



2657 N.E. 188 St  
Miami, Florida  
33180

PIC74C04	PICA RC4 WACO	99.95	72.95	81
PIC74C05	PICA RC5 DUELLIST 2/40	99.95	72.95	81
PIC74C06	PICA RC6 CESSNA 182	109.95	78.95	81



## PICA

# Bucker Bu-133 Jungmeister



Our new Bucker Jungmeister is 1/5 scale, and designed to give maximum aerobatic performance on any .60 engine. The kit documentation will illustrate 3 - 4 different versions of the famed German biplane, with appropriate 3-views. The model is also convertible to the Jungmann version. It's a very versatile airplane!

Construction is all-wood, with a wing structure comparable to our famed Waco's. The sequential photo-illustrated instruction manual makes putting it together a snap. This is one biplane you'll enjoy building as much as flying!

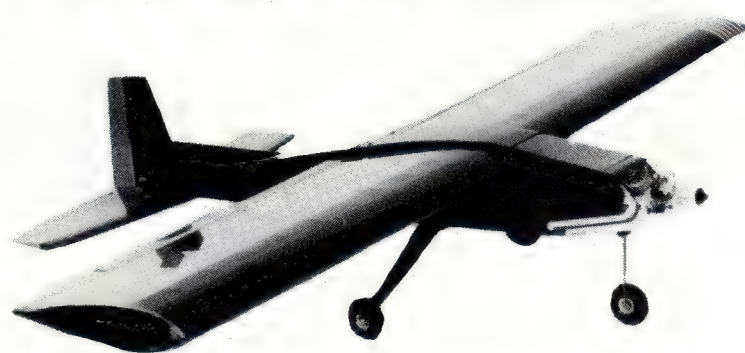
### FEATURES

- 60" span
- 1030 sq. in. area
- 49" length
- Weight 8-9 lbs.
- .60 engine
- vacu-formed cowl
- Mylar decals
- Complete hardware pkg.
- Builds in 3 versions
- Modifiable to a Jungmann
- Illustrated instruct.



# Rapier Trainer

This new sport trainer is fun-to-fly and quick-to-build. The highwing kit features dural landing gear and all-balsa pieces. Has a 58" wing span, 12" wing cord and a 747 square inch wing area. Requires a 4 channel radio and a 40 size engine. 52" length. The Rapier takes approximately 15-18 hours to build.



PIC74C07	PICA RC7 JUNGMEISTER 133 BIPE	1C9.95	78.95	82
PIC74C08	PICA RC8 RAPIER	Price unavailable at press time		82

## LITTLE TONI

SCALE: FORMULA 1 PYLON RACER

### FEATURING . . .

- Epoxy Fiberglass Fuselage
- Epoxy Fiberglass Cheek Cowls with fillet
- Joined Epoxy Fiberglass Wheel Pants
- Aluminum Wheels
- Dural Landing Gear
- Flush Fitting Wheel Retainers
- Precision Cut Wood Parts
- Foam Wing Core
- Wing Skins
- All Wire Hardware
- Formed Canopy
- Complete Plans & Instructions
- Scale 3 View

### SPECIFICATIONS . . .

- ★ Engine .40
- ★ Wing Span 50 in.
- ★ Wing Area 475 sq. in.
- ★ Weight 5 lbs.



## PRATHER

## LITTLE TONI QUARTER MIDGET

\*Same features as the Little Toni Form. I

### SPECIFICATIONS . . .

- ★ Engine .15
- ★ Wing Span 42 in.
- ★ Wing Area 310 sq. in.
- ★ Weight 2 1/2 lbs.



## PANTHER



### SPECIAL FEATURES . . .

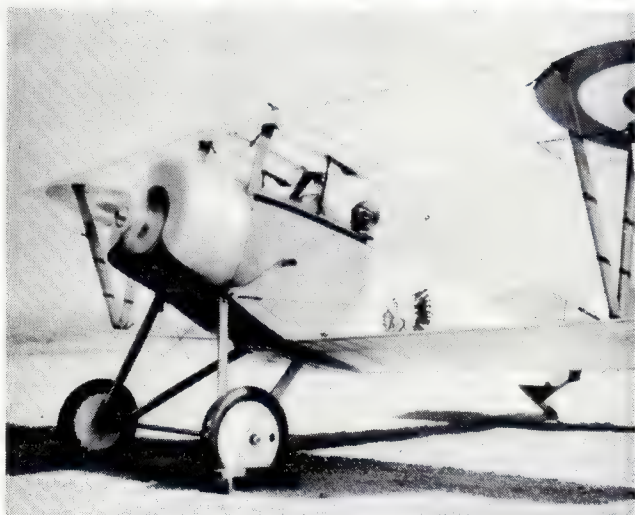
- Epoxy Fiberglass Fuselage
- Epoxy Fiberglass Nose Cone
- Firewall Installed
- Foam Wing & Stab Skins
- Dural Landing Gear
- All Wood & Wire Parts
- Complete Plans & Instructions
- ★ Wing Span 64 in.
- ★ Engine Size .60

PRA72162	PRATHER 2020 1/4 MGT. LIL TONY	89.95	71.95	82
PRA73001	PRATHER 2000 FORM. I LIL TONY	129.95	103.95	82
PRA73148	PRATHER 2040 PANTHER	129.95	103.95	82



PROCTOR

# PROCTOR'S NIEUPORT



This award-winning scale model of the famous French Fighter was designed for the creative person whose interest goes beyond the ordinary. It is scaled 2 1/2" to the foot to achieve a light wing loading for slow scale flight characteristics and good stability. The 61 1/2" span allows ample room for fine detailing of all parts and the use of a large engine (.56 and up) capable of swinging a scale diameter prop. Considering all the detail, this is not a difficult kit to assemble (approximately 5-6 weeks). Upper and lower wings plus all rigging are removeable as a unit for transportation and storage. Kit contains hundreds of pre-formed, die-cut, extruded, machined and hand-made parts; full-size plan sheets; a 32 page photo instruction manual; decals and some hardware. Requires a 4 channel radio.

# THE ANTIC MONO



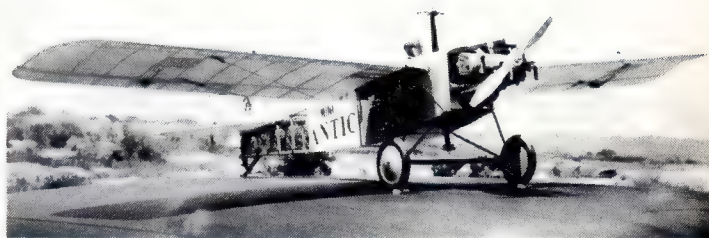
The Antic Monoplane is a model kit designed from the era of "Those Magnificent Men and Their Flying Machines". This fully acrobatic kit is capable of a very spectacular performance with a minimum of flying skill, yet flies with extreme stability at very low, realistic air speeds. This plane has special provisions for rudder steering for the beginner. It may be flown as a seaplane or landplane, on rough fields and from small fields. Kit includes all fittings, turnbuckles, cables, pre-cut parts etc. Features detailed full-size plans, step-by-step construction manual, balsa wing and fuse, detachable wings and fuel proof decals. 81 1/2" span. Requires a 3 or more channel radio and .35 -.61 size engine.

# THE ANTIC BIPE



A 1/4 size semi-scale biplane that flies at a very low, realistic air speed. This kit is a two seater for wheels or floats. An extremely stable and easy-to-fly kit that's fully acrobatic and capable of a very spectacular performance with a minimum of flying skill. Features simple assembly aided by a step-by-step photo construction manual, balsa wing and fuse, preassembled and formed hardware, easily detachable wings, decals and detailed plans. 64" span. Requires a .45 size or larger engine and a 4 channel radio.

# MINI-ANTIC



This smaller version of the famous Antic Monoplane is a docile aircraft that is truly a joy to fly and certainly draws a lot of attention at the field. Almost everyone watches when this aircraft takes to the air. The kit features balsa, spruce, ply and bamboo construction, shaped parts, building instructions, plan sheets and hardware. 56" span. Requires a .19 and up size engine and a 3-4 channel radio. This kit is a real pleasure to build and fly!

PRC74505	PROCTOR MINI-ANTIC #505	76.95	59.95	83
PRC74701	PROCTOR ANTIC MONO #701	127.50	99.95	83
PRC74703	PROCTOR ANTIC BIPE #703	149.50	111.95	83
PRC74801	PROCTOR NIEUPORT II #801	219.95	164.95	83



## R & S

### Stand-off Scale Jet Fighter

Wing Span 48"  
Fuselage 56"  
Engine 60 cu. in.  
Total Wing Area 680 sq. in.  
Total Weight 7½ lbs.



#### EACH KIT CONTAINS:

Fiberglass fuselage with fin in place and fire wall installed  
Fiberglass belly pan  
Fiberglass cowl  
Plastic canopy and scoop  
Styrofoam wings and stab elevators

Balsa: Rudder-Elevators  
All balsa wood  
Full color decals  
Landing gear blocks  
Spinner  
Plans

R+S74C00 R+S F-16A JET FIGHTER-DELUXE

129.95 97.50 84

### F-16A

#### New Delta Wing Foam and Fiberglass Design

The ultimate in modern weaponry. Introducing the General Dynamics F-16 Fighter. It is light, solid and durable. The fuselage is fiberglass and the wing and stab cores are made from lightweight foam. It's the kind of model that will compete with the best in stand-off competition or give hours of pleasure to the Sunday flyer.

## ROYAL PRODUCTS

### SPECTACULAR!

AN AUTHENTIC B-17E/F Balsa R/C KIT

ROYAL SCALE AT ITS FINEST..

#### FEATURES . . .

- Spun Aluminum Cowls
- Tongue and Groove Nacelle Attachment
- Balsa and Plywood Construction
- Detailed Pictorial Instructions
- Big Full-Size One-Piece Plans
- Suggested Retract Modification Shown
- True-Build Keeled Fuselage Construction
- Polished Butyrate Canopies and Turrets
- "E" Model Nose "Greenhouse" is available as a separate option ("F" Nose in kit)



#### SPECIFICATIONS

Engine Size: 15-.25 x 4  
Wing Span: 77-3/4"  
Fuselage Length: 55-3/8"  
Wing Area: 806 Sq. In.  
Scale Ratio: 3/4" = 1'



**Royal Products**  
CORPORATION

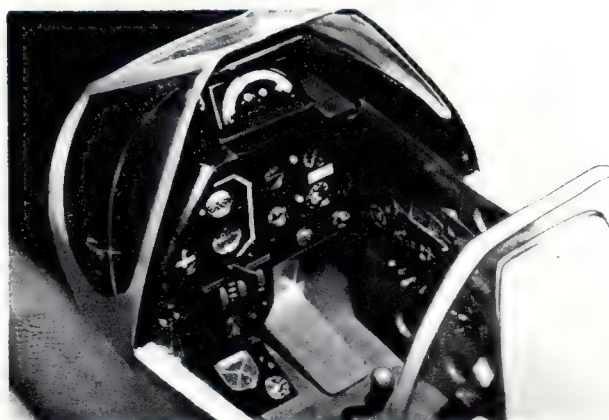
790 W. TENNESSEE  
DENVER, CO 80223

## ROYAL REALISM... from the outside in!

Royal scale aircraft have long been known for their authenticity and flyability. Now, this meticulous craftsmanship has been carried one step further — right into the pilot's seat! Everything from seat belts to instruments are included in these micro-molded plastic interiors. The sides, dash, seat and flooring come in modular sections which are easily assembled. The end result: a new dimension in scale realism.

#### P-51D COCKPIT INTERIOR

Scaled to fit the Royal .60 — .80 size P-51D Mustang. With slight modification, this cockpit will drop into similar size Mustang kits now on the market.



ROY2C000 ROYAL INTERIOR - P-51 .60  
RCY74035 ROYAL B-17

9.95 9.45 84  
174.95 147.95 84

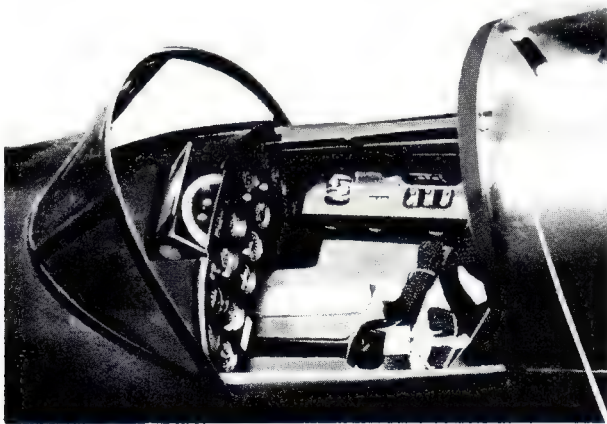


# ROYAL PRODUCTS

# ROYAL SCALE...from the Outside-In!

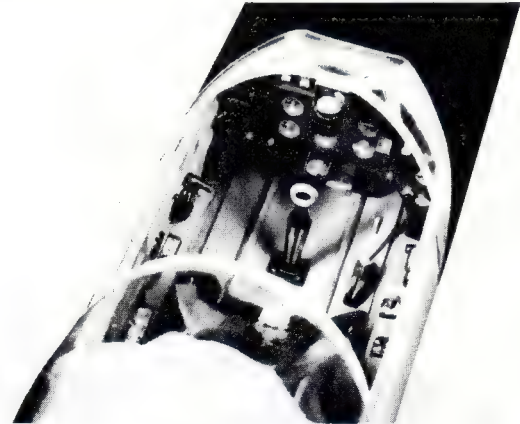
## COMPLETE MICRO - DETAILED INTERIORS

Molded with the detail conscious scale modeler in mind, these new cockpit kits are designed to fit perfectly into Royal (or similar size) scale aircraft. The kit comes complete with gauges, seat, seat belts, all control features located on the dash, floor, sides and rear of the cockpit. Detailed painting and assembly instructions are included. Molded in fast-to-assemble sections which for a little extra time will give a truly outstanding touch to your scale project.



### F4U-1D COCKPIT INTERIOR

Scaled to fit the Royal .60 - .80 size F4U-1D Corsair. With slight modification, this cockpit will drop into similar size scale Corsair kits now on the market.



### SPITFIRE COCKPIT INTERIOR

Scaled to fit the Royal .60 - .80 size Spitfire. With slight modification, this cockpit will drop into similar size scale Spitfire kits now on the market.

### SMALL CIVILIAN CESSNA INTERIOR

Fits the Cessna 172 Midi, Piper Colt Jr. and the Cessna 182 Jr.

### LARGE CESSNA INTERIOR

Fits the Cessna 182 Sr., Piper Colt Sr., Cessna 206 and the Cessna Skymaster.

**NEW!**

RCY20001	ROYAL INTERIOR - P-51 .40	8.95	8.50	85
RCY20002	RCYAL INTERIOR - P-51 .20	7.95	7.55	85
RCY20003	RCYAL INTERIOR - P-51 .049	7.95	7.55	85
RCY20010	ROYAL INTERIOR - CORSAIR .60	9.95	9.45	85
RCY20012	ROYAL INTERIOR - .40 CORSAIR	8.95	8.50	85
RCY20014	ROYAL INTERIOR - CORSAIR .049	6.95	6.60	85
RCY20020	RCYAL INTERIOR - SPITFIRE .60	9.95	9.45	85
RCY20030	ROYAL INTERIOR - FW190 .60	9.95	9.45	85
RCY20040	ROYAL INTERIOR - ZERO .60	9.95	9.45	85
RCY20041	RCYAL INTERIOR - ZERO .40	8.95	8.50	85
RCY20042	RCYAL INTERIOR - ZERO .20	7.95	7.55	85
RCY20043	ROYAL INTERIOR - ZERO .049	6.95	6.60	85
RCY20050	RCYAL INTERIOR - BEARCAT	9.95	9.45	85
RCY20060	RCYAL INTERIOR - P-38	9.95	9.45	85
RCY20070	RCYAL INTERIOR - B17F	9.95	9.45	85
RCY20080	ROYAL INTERIOR - B-25	9.95	9.45	85
RCY20085	ROYAL INTERIOR - SMALL CESSNA	8.95	8.50	85
RCY20086	ROYAL INTERIOR - LARGE CESSNA	9.95	9.45	85
RCY20088	RCYAL INTERIOR - CESSNA 310Q	9.95	9.45	85

## Interior Kits Now Available

Corsair Sr. 1 3/4" = 1'

Corsair J. 1 1/4" = 1'

Corsair Mini 1/2A Size

B-17F 3/4" = 1'

P38 1-3/8" = 1'

P-51D Sr. 1 3/4" = 1'

P-51D Jr. 1 1/2" = 1'

P-51D Midi 1 1/4" = 1'

P51-D Mini 1/2A Size

Spitfire Sr. 1 3/4" = 1'

B-25 1-1/8" = 1'

Bearcat 1 3/4" = 1'

FW-190 1 3/4" = 1'

FW-190 1 3/4" = 1'

Zero Sr. 1 3/4" = 1'

Zero Jr. 1 1/3" = 1'

Zero Midi 1.2" = 1'

Zero Mini 1/2A Size



## ROYAL PRODUCTS

Mitsubishi

**A6M3 ZERO**

**.20 SIZE**

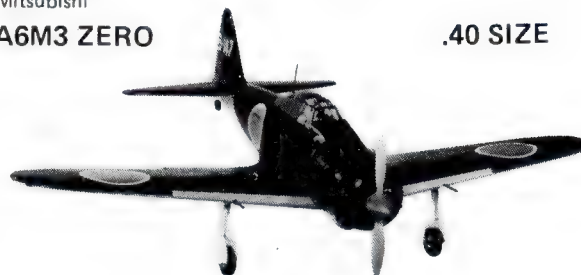


Engine Size . . . . .19-.35  
Wing Span . . . . .46.2"  
Fuselage Length . . . . .35½"  
Wing Area . . . . .356½ Sq. In.  
Scale . . . . .1.2" = 1'

Mitsubishi

**A6M3 ZERO**

**.40 SIZE**



Engine Size . . . . .40-.50  
Wing Span . . . . .58 11/16"  
Fuselage Length . . . . .45 11/16"  
Wing Area . . . . .577 Sq. In.  
Scale . . . . .1½" = 1'

Chance Vought

**F4U-ID CORSAIR**

**.40 SIZE**



Engine Size . . . . .40-.50  
Wing Span . . . . .54½"  
Fuselage Length . . . . .41½"  
Wing Area . . . . .480 Sq. In.  
Scale . . . . .1½" = 1'

North American

**P-51D MUSTANG**

**.20 SIZE**



Engine Size . . . . .19-.35  
Wing Span . . . . .46½"  
Fuselage Length . . . . .40 5/16"  
Wing Area . . . . .372 Sq. In.  
Scale . . . . .1¼" = 1'

**CESSNA 172**

**.20 SIZE**



Engine Size . . . . .19-.35  
Wing Span . . . . .54½"  
Fuselage Length . . . . .40 3/8"  
Wing Area . . . . .388 Sq. In.  
Scale . . . . .1½" = 1'

Messerschmitt

**ME-109D**

**.60 SIZE**



Engine Size . . . . .60-.80  
Wing Span . . . . .67.2"  
Fuselage Length . . . . .58.4"  
Wing Area . . . . .697 Sq. In.  
Scale . . . . .2" = 1'

RCY72001 ROYAL A6M3 ZERO .20 SIZE  
RCY72002 ROYAL P-51D MUSTANG - MIDI  
RCY72003 ROYAL CESSNA 172 .20 SIZE  
RCY73003 ROYAL CORSAIR F4U-ID JUNIOR  
RCY73016 ROYAL A6M3 ZERO .40-50  
RCY74109 ROYAL ME-109C

55.95 47.55 86  
54.95 46.70 86  
59.95 48.40 86  
74.95 63.45 86  
79.95 67.95 86  
59.95 84.95 86



## ROYAL PRODUCTS



### CESSNA 182 SKYLANE (Junior)

Engine Size .....15-.23  
Wing Span ..... 56 In.  
Fuselage Length ..... 40 In.  
Wing Area ..... 405 Sq. In.  
Scale Ratio ..... 1 1/2"=1'



*Kawasaki*

### K1-61 HIEN (Junior)

Engine Size .....35-.40  
Wing Span ..... 55 In.  
Fuselage Length ..... 39 3/8 In.  
Wing Area ..... 468 Sq. In.  
Scale Ratio ..... 1 1/3"=1'



*Supermarine*

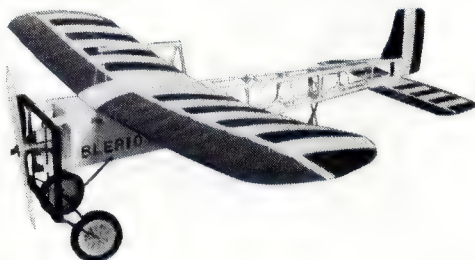
### SPITFIRE (Junior)

Engine Size .....40-.45  
Wing Span ..... 53 5/8 In.  
Fuselage Length ..... 43 1/8 In.  
Wing Area ..... 496 Sq. In.  
Scale Ratio ..... 1 11/24"=1'



### PIPER COLT (Junior)

Engine Size .....30-.45  
Wing Span ..... 56 11/16 In.  
Fuselage Length ..... 40 11/28 In.  
Wing Area ..... 527 Sq. In.  
Scale Ratio ..... 1 5/16"=1'



### BLERIOT

Engine Size .....35-.40  
Wing Span ..... 51-9/16 In.  
Fuselage Length ..... 47 3/4 In.  
Wing Area ..... 564 Sq. In.  
Scale Ratio ..... 1-7/8"=1'

### BLERIOT

Engine Size ..... .09-.15  
Wing Span ..... 46"  
Fuselage Length ..... 34 1/4"  
Wing Area ..... 356 Sq. In.



### CESSNA 206 Skywagon

Engine Size .....49-.60  
Wing Span ..... 73 1/4 In.  
Fuselage Length ..... 56 In.  
Wing Area ..... 654 Sq. In.  
Scale Ratio ..... 2"=1'

RCY72006	ROYAL CESSNA 182 JR. 15-23	69.95	59.45	87
RCY72007	ROYAL BLERIOT 09-15 MID SIZE	44.95	37.95	87
RCY73012	ROYAL HEIN JUNIOR TONY	64.95	54.95	87
RCY73018	ROYAL SPITFIRE JUNIOR	64.95	54.95	87
RCY73022	ROYAL PIPER COLT JUNIOR	69.95	59.45	87
RCY73023	ROYAL BLERIOT XI 35-40	59.95	50.95	87
RCY74001	ROYAL CESSNA 206 SKYWAGON	104.95	88.95	87



## ROYAL PRODUCTS



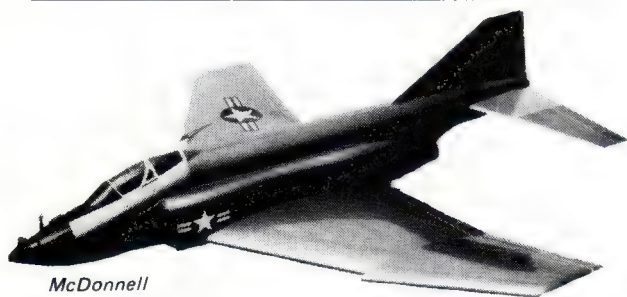
*Focke-Wulf*  
**FW-190**

Engine Size .....60-.80  
Wing Span .....60 3/4 In.  
Fuselage Length .....51 1/2 In.  
Wing Area .....642 Sq. In.  
Scale Ratio .....1 3/4"=1'



*Chance Vought*  
**F4U-ID CORSAIR**

Engine Size .....60-.80  
Wing Span .....61 1/2 In.  
Fuselage Length .....50 3/8 In.  
Wing Area .....669 Sq. In.  
Scale Ratio .....1 1/2"=1'



*McDonnell*  
**F4J PHANTOM**

Engine Size .....49-.80  
Wing Span .....45 In.  
Fuselage Length .....45 1/8 In.  
Wing Area .....477 Sq. In.  
Scale Ratio .....1 1/4"=1'



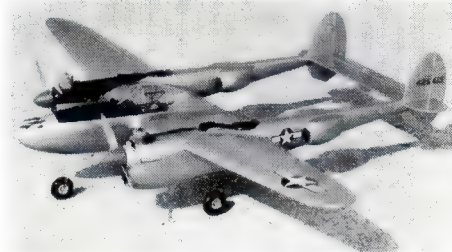
**CESSNA 182 SKYLANE**

Engine Size .....45-.61  
Wing Span .....71 2/3 In.  
Fuselage Length .....55 7/16 In.  
Wing Area .....700 4/5 Sq. In.  
Scale Ratio .....2"=1'



*North American*  
**B-25 MITCHELL**

Engine Size .....Twin .40-.61  
Wing Span .....70 7/8 In.  
Fuselage Length .....54 In.  
Wing Area .....750 Sq. In.  
Scale Ratio .....1 1/8"=1'



**P-38 LIGHTNING**

Engine Size .....Twin .35-.61  
Wing Span .....74 1/4 In.  
Fuselage Length .....50 3/4 In.  
Wing Area .....695 Sq. In.  
Scale Ratio .....1 3/8"=1'

RCY74002	ROYAL FW-190
RCY74003	ROYAL CORSAIR F4U-ID 60-80
RCY74004	ROYAL PHANTOM F4J
RCY74005	ROYAL CESSNA 182 SKYLANE
RCY74007	ROYAL B-25 TWIN
RCY74008	ROYAL P-38 TWIN

104.95	88.95	88
104.95	88.95	88
99.95	84.95	88
104.95	88.95	88
119.95	101.95	88
134.95	114.95	88



## ROYAL PRODUCTS



### SPIRIT OF ST. LOUIS

Engine Size .....45-.61  
Wing Span .....80 In.  
Fuselage Length .....49 3/4 In.  
Wing Area .....958 Sq. In.  
Scale Ratio .....1 3/4"=1'



### PITTS SPECIAL *Little Stinker*

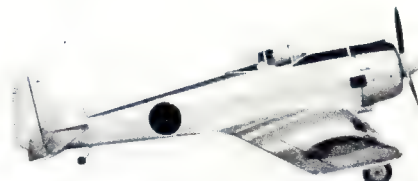
Engine Size .....49-.61  
Wing Span .....51 3/16 In.  
Fuselage Length .....44 1/4 In.  
Wing Area .....856 Sq. In.  
Scale Ratio .....2 7/8"=1'



*Kawasaki*

### K1-61 HEIN

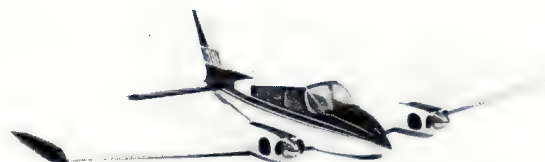
Engine Size .....45-.80  
Wing Span .....68 1/4 In.  
Fuselage Length .....49 In.  
Wing Area .....676 Sq. In.  
Scale Ratio .....1 3/4"=1'



*Nakajima*

### KI-43 OSCAR

Engine Size .....50-.80  
Wing Span .....59 In.  
Fuselage Length .....48 1/4 In.  
Wing Area .....613 Sq. In.  
Scale Ratio .....1 5/8"=1'



### CESSNA 310 Q

Engine Size .....Twin .35-.61  
Wing Span .....72 7/8 In.  
Fuselage Length .....52 1/2 In.  
Wing Area .....725 Sq. In.  
Scale Ratio .....1 3/4"=1'



*Mitsubishi*

### A6M5 ZERO

Engine Size .....60-.80  
Wing Span .....62 5/8 In.  
Fuselage Length .....51 7/8 In.  
Wing Area .....706 Sq. In.  
Scale Ratio .....1 3/4"=1'

RCY74009 ROYAL SPIRIT OF ST. LOUIS  
RCY74010 ROYAL PITTS-LITTLE STINKER  
RCY74011 ROYAL HEIN SENIOR TONY  
RCY74013 ROYAL OSCAR NAKAJIMA K143  
RCY74014 ROYAL CESSNA 310 C TWIN  
RCY74C15 ROYAL A6M5 ZERO 60-80

99.95 84.95 89  
94.95 80.95 89  
104.95 88.95 89  
99.95 84.95 89  
119.95 101.95 89  
104.95 88.95 89



## ROYAL PRODUCTS



*Supermarine*

### SPITFIRE

Engine Size .....60-.80  
 Wing Span .....64 1/2 In.  
 Fuselage Length .....52 7/8 In.  
 Wing Area .....736 Sq. In.  
 Scale Ratio .....1 3/4"=1'



### P-51 MUSTANG

Engine Size .....40-.61  
 Wing Span .....55 1/2"  
 Fuselage Length .....48 5/16"  
 Wing Area .....576 Sq. In.  
 Scale Ratio .....1 1/2"=1'



### PIPER COLT

Engine Size .....60-.80  
 Wing Span .....74 13/16 In.  
 Fuselage Length .....53 1/2 In.  
 Wing Area .....946 Sq. In.  
 Scale Ratio .....2 9/16"=1'



### CESSNA SKYMASTER

Engine Size: .....Twin .35-.61  
 Wing Span .....76 1/8 In.  
 Fuselage Length .....58 1/8 In.  
 Wing Area .....754 Sq. In.  
 Scale Ratio .....2"=1'



*Grumman*

### F8F BEARCAT

Engine Size .....60-.80  
 Wing Span .....62 3/16 In.  
 Fuselage Length .....48 3/16 In.  
 Wing Area .....652 Sq. In.  
 Scale Ratio .....1 3/4"=1'



### PITTS S-2 *Twin Seat*

Engine Size .....60-.80  
 Wing Span .....52 In.  
 Fuselage Length .....49 9/16 In.  
 Wing Area .....830 Sq. In.  
 Scale Ratio .....2.6"=1'

RCY73051 ROYAL P-51 JR. 40-60 SIZE  
 RCY74017 ROYAL SPITFIRE  
 RCY74021 ROYAL PIPER COLT SENIOR  
 RCY74024 ROYAL CESSNA SKYMASTER  
 RCY74025 ROYAL F8F BEARCAT  
 RCY74026 ROYAL S2 PITTS SPECIAL

79.95 67.95 90  
 99.95 84.95 90  
 99.95 84.95 90  
 119.95 101.95 90  
 106.95 88.95 90  
 99.95 84.95 90



## ROYAL PRODUCTS



*Beechcraft*

### STAGGERWING

Engine Size .....60-.80  
Wing Span .....56 In.  
Fuselage Length .....45 5/8 In.  
Wing Area .....907 Sq. In.  
Scale Ratio .....1 3/4"=1'



*Douglas*

### C-47 SKYTRAIN

Engine Size .....Twin .40-.61  
Wing Span .....83 1/8 In.  
Fuselage Length .....56 7/8 In.  
Wing Area .....767 Sq. In.  
Scale Ratio .....7/8"=1'



*North American*

### P-51D MUSTANG

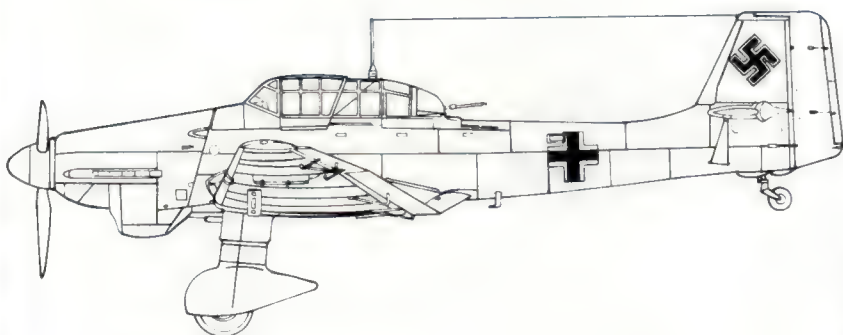
Engine Size .....60-.80  
Wing Span .....64 3/4 In.  
Fuselage Length .....55 3/4 In.  
Wing Area .....777 Sq. In.  
Scale Ratio .....1 3/4"=1'



*Partenavia*

### P68 VICTOR

Engine Size .....Twin .19-.25  
Wing Span .....62 7/8 In.  
Fuselage Length .....49 1/2 In.  
Wing Area .....502 Sq. In.  
Scale Ratio .....1 3/5"=1'



*Junkers*

### JU 87D-5 STUKA

Engine Size .....60-.80  
Wing Span .....73 7/8 In.  
Fuselage Length .....54 3/4 In.  
Wing Area .....723 Sq. In.  
Scale Ratio .....1.6"=1'



## ROYAL PRODUCTS CORP.

790 W. Tennessee  
Denver, CO 80223

"Royal Scale" goes one step beyond "standoff". Hand-craftsmanship with a special emphasis on scale accuracy and detailing sets the Royal line apart from other balsa models. To the builder, this added quality saves time and assures a good parts fit. To the sport flyer this extra margin of quality assures good flying characteristics whether the model is made to standoff or true scale specifications.

RCY74030	ROYAL STAGGERWING BEECH	99.95	84.95	91
RCY74047	ROYAL DOUGLAS C-47	129.95	110.45	91
RCY74051	ROYAL P-51C MUSTANG 60-80	104.95	88.95	91
RCY74068	ROYAL TWIN P-68 VICTOR	89.95	76.95	91
RCY74087	ROYAL JU 87D-5 STUKA	104.95	88.95	91



**SIG**

# SIG KADET



## KIT RC-31

Designed by: CLAUDE McCULLOUGH

## THE IDEAL R/C TRAINER

### KIT FEATURES

Instructions For Installing Radio Equipment  
Complete Illustrated Building and Flying Instructions  
Handy Printed Fuselage Sides; Build Internal  
Structure Directly on the Wood  
Nylon Nose Gear Bearing  
Nylon Control Horns  
Molded Surface Hinges  
Heavy Duty Steering Arm  
Die-Cut Balsa and Plywood Parts  
Top Quality Balsa and Hardwood  
Full-Size Plans  
Molded Plastic Engine Cowling  
Formed Nose Gear with Shock-Absorbing Coil  
Torsion Bar Main Gear

## EASY TO BUILD

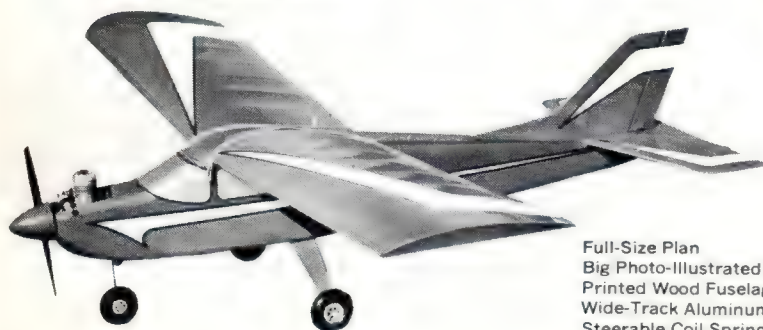
LENGTH: 42"  
WING SPAN: 57"  
WEIGHT: 4 lbs.  
ENGINES: .19-.29

### UP TO 3 CHANNEL RADIO EQUIPMENT

Sturdy, built-up balsa construction and light wing loading combine in the Kadet to produce a perfect sport or beginners' model. The flying performance of the high-lift, flat-bottomed airfoil is responsive to control and inherently stable. A tricycle landing gear helps ground handling, take-off and landing characteristics.

## KADET JUNIOR

*A chip off the old block!*



Engines: .15 to .25 Cu. In.  
Wing Span: 48 In.  
Length: 39 In.  
Wing Area: 430 Sq. In.

Designed by CLAUDE McCULLOUGH

### KIT FEATURES:

Full-Size Plan  
Big Photo-Illustrated Step-By-Step Instruction Book  
Printed Wood Fuselage Sides  
Wide-Track Aluminum Main Gear  
Steerable Coil Spring Nose Gear  
Sig Quality Balsa

Die Cut Balsa and Plywood Parts  
Aluminum Motor Mounts  
Nylon Control Horns  
Nylon Nose Gear Steering Arm  
Tuf-Steel RC Links and Rods  
Hardware Package

ALL THE GREAT TRAINER QUALITIES OF THE FAMED KADET DISTILLED INTO A SMALLER MODEL FOR 2 OR 3 CHANNEL FLIERS.

SIG72C31 SIG #RC-31 KADET TRAINER  
SIG73C46 SIG #RC-46 KADET JUNIOR

44.95 35.95 92  
34.95 27.95 92



## SUPER SPORT

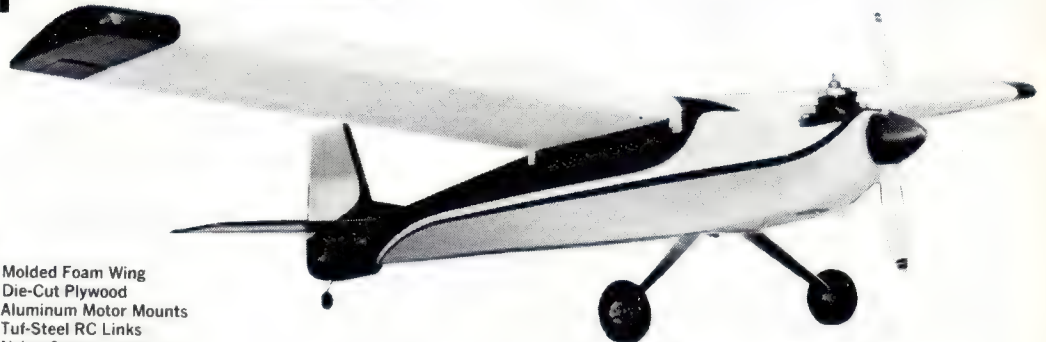
**SIG**

45" Wing Span  
For 2 or 3 Channels  
Built-Up Balsa Fuselage  
Sheet Balsa Tail Surfaces  
For .09 to .15 Engines  
Room Enough For Standard Size Radios  
Flat-Bottomed Ready-To-Use Foam Wing

### KIT FEATURES

Handy Printed Fuselage Sides -  
Build Internal Structure Directly On The Wood  
Aluminum Landing Gear  
Plus: Coil Spring Nose Gear, Nylon Bearing  
And Steering Arm On Klipper,  
Tail Wheel Included On Super Sport  
One Piece ABS Molded Cowling

Molded Foam Wing  
Die-Cut Plywood  
Aluminum Motor Mounts  
Tuf-Steel RC Links  
Nylon Control Horns  
Molded Plastic Control Hinges  
Illustrated Instruction Book



RC-37 Designed by MIKE GRETZ

## COLT

RC-43

Designed by JEFF FOLEY

Flat-Bottomed Molded Foam Wing  
Built-Up Balsa Fuselage  
Sheet Balsa Tail Surfaces  
Room Enough For Standard Size Radios

### OTHER COLT KIT FEATURES:

Printed Fuselage Sides -  
build directly on the wood  
Die-Cut Plywood Formers  
and Doublers  
Formed Aluminum Main Landing Gear  
Coil Spring Nose Gear  
Nylon Nose Gear Bearing

Nylon Steering Arm  
Aluminum Motor Mounts  
Nylon Control Horns  
RC Links  
Molded Hinges  
Illustrated Instruction Book



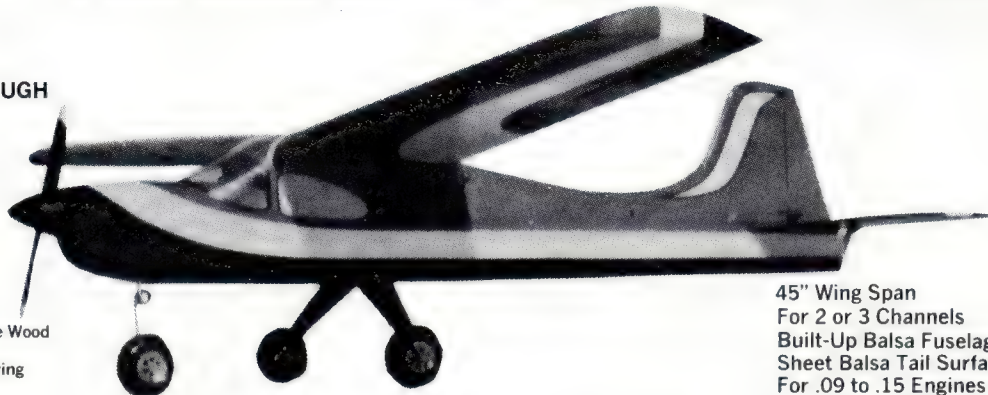
RADIO: 2-3 Channel  
ENGINE: .09-.15 Size  
WING SPAN: 45"  
WING AREA: 290 Sq. In.

## KLIPPER

Designed by CLAUDE McCULLOUGH

### KIT FEATURES

Molded Foam Wing  
Die-Cut Plywood  
Aluminum Motor Mounts  
Tuf-Steel RC Links  
Nylon Control Horns  
Molded Plastic Control Hinges  
Illustrated Instruction Book  
Handy Printed Fuselage Sides -  
Build Internal Structure Directly On The Wood  
Aluminum Landing Gear  
Plus: Coil Spring Nose Gear, Nylon Bearing  
And Steering Arm On Klipper,  
Tail Wheel Included On Super Sport  
One Piece ABS Molded Cowling



45" Wing Span  
For 2 or 3 Channels  
Built-Up Balsa Fuselage  
Sheet Balsa Tail Surfaces  
For .09 to .15 Engines  
Room Enough For Standard Size Radios  
Flat-Bottomed Ready-To-Use Foam Wing

RC-36

## KIWI

### RC SPORT PATTERN FLIER

Designed by HANK POHLMANN

WINGSPAN: 54"  
SUGGESTED ENGINES: .35 - .45  
SUGGESTED RADIO: 4 CHANNEL

### KIT FEATURES

Built-up Wing  
Die-Cut Sig Balsa and Plywood  
Printed Balsa Fuselage Sides -  
Build Directly on the Wood  
Sheet Balsa Tail Surfaces  
Shaped Balsa, Ply and Hardwood Parts  
Clear Bubble Canopy  
Pre-Bent Torsion Bar Main Landing Gear  
Coil Spring Nose Gear  
Nylon Nose Gear Bearing and Steering Arm

Aluminum Motor Mounts  
Nylon Strip Hinges  
Nylon Control Horns  
Wire Aileron Torque Rods  
Nylon Wing Bolts  
RC Links and Threaded Rods  
Screws, Blind Nuts  
Full Size Plan  
Illustrated Instruction Book

RC-42



SIG72036	SIG #RC-36 KLIPPER	25.95	20.75	93
SIG72037	SIG #RC-37 SUPER SPORT	24.50	19.60	93
SIG72043	SIG #RC-43 CCLT	25.95	20.75	93
SIG73042	SIG #RC-42 KIWI	47.50	37.95	93



## SIG

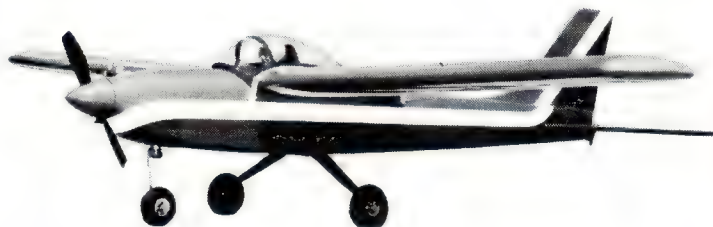
### KAVALIER

Balsa Rib Construction Wing Featuring Built-In Washout

Wing Span: 55½"  
.29 -.40 Size Engine  
Requires a 4 Channel Radio

Designed by CLAUDE McCULLOUGH

When the student pilot feels secure flying the Kadet and can handle it capably, he is ready to take the next step. The Kavalier has a special wing design, calculated to make this transition easier. The precise amount of incidence change required to help eliminate tip stall is automatically incorporated as the wing is built in the usual way on a flat surface. In addition to this aid to stability, differential movement aileron horns are furnished in the kit, providing less down and more up travel on the ailerons. Adverse yaw in turns is reduced by this simple method and controllability of the model is greatly improved. Find out what smooth flying really is with the Kavalier.



**SIG**  
KIT RC-39

### KOMANDER

Larger Sized Model  
Foam Core Wing With Built-In Washout

Wing Span: 62"  
.45 -.60 Size Engine  
Weight: 5½ lbs.  
.40 -.50 Size Engine  
Requires a 4 Channel Radio

Designed by CLAUDE McCULLOUGH

Specially designed for novice RCers who want to move up from simpler models or prefer to start with an aileron controlled airplane. The built-in stability, coupled with good maneuvering and aerobatic ability, allows rank amateurs and low-time fliers to do a creditable job. Piloting boners that would clobber other airplanes are readily forgiven by the Komander. It will fly right down to the full stalling point without snap rolling or falling off on a wing. This enables slowed down, nose-high landings to be made. Coupled with the shock absorbing qualities of the wing mounted gear, the superior ground handling characteristics make this a fine performer from rough or grass fields.



**SIG**  
KIT RC-32

### KOMET

Featuring Foam Core Wing, Balsa And Plywood Skin

Weight: 6½ - 7 lbs.  
.45 -.60 Size Engine  
Wing Span: 67"  
Requires a 4 Channel Radio

Designed by MAXEY HESTER

In the Komet, Maxey Hester has created a pattern ship that meets the requirements of the most demanding competition flying, yet is equally at home at a Sunday afternoon sport flying session. As in the Kougat, construction is speeded and appearance improved by a formed plastic top made from ABS plastic that is easy to glue and easy to paint. It carries no load and serves only as a streamlined fairing on top of the rugged balsa box fuselage. Featuring a foam core wing, this big kit takes only a short time longer to build than one of the so-called ARF (almost ready-to-fly) types and results in a durable aircraft with lower wing loading and higher flight performance, at a lower cost.



**SIG**  
KIT RC-29

### SCAMP

Designed For a 2 or 3 Channel Radio

- \* Flatbottomed molded foam wing
- \* Built-up balsa fuselage
- \* Sheet balsa tail surfaces
- \* Room for standard size radios

Wing Span: 45"  
290 Sq. In. Wing Area  
.09 -.15 Size Engine

**INCLUDES:** Nylon Control Horns  
Tuf-Steel RC Links  
Threaded Control Rods  
Molded Hinges  
Illustrated Instruction Book  
Screws, Blind Nuts and  
Other Small Hardware

Printed Fuselages Sides-  
Build Directly On The Wood  
Die-Cut Plywood Formers  
and Doublers  
Formed Aluminum Main Landing Gear  
Aluminum Motor Mounts



RC-45

SIG72045	SIG #RC-45 SCAMP	24.50	19.60	94
SIG73032	SIG #RC-32 KOMANDER	49.95	39.95	94
SIG73039	SIG #RC-39 KAVALLER	49.95	39.95	94
SIG74029	SIG #RC-29 KOMET Balsa Skin	57.50	45.95	94



**SIG**

# PIPER CUB J-3

YOU CAN'T GO WRONG WITH A CUB

Kit RC-3  
Wing Span: 71"  
Length: 42"  
.19-.40 Size Engine  
Requires a 4 Channel Radio



**FEATURING:**

Molded Control Hinges  
Strong One-Piece Wing  
Stable Design  
Molded Engine Cowling  
Formed Landing Gear  
Aluminum Engine Mounts  
Die-Cut Sig Balsa and Plywood  
Full-Size Detailed Plans

Die-Cut Windshield  
Trademark and Number Decals  
Built-Up Balsa Construction  
Removable Wing Struts

A high value kit of one of the most popular scale models ever produced. Built up balsa construction produces a strong structure without excess weight. Light wing loading aids flying performance and stability. With out doubt the Piper J-3 was the most popular airplane ever manufactured. The design is nearly perfect for R/C and makes a beautiful airplane that is easy to fly.

**SIG**

*Skybolt*

ANTIDOTE FOR BIPLANE FEVER

FULLY AEROBATIC SYMMETRICAL WINGS

Wing Span: 51"  
Length: 42½"  
Wing Area: 790 Sq. in.  
.45-.60 Size Engine  
Requires a 4 Channel Radio



**FEATURES:**

- \* Full-Length Formed Plastic Fuselage
- \* Molded Plastic Cowling and Wheel Pants
- \* Molded Cockpit Trim Parts
- \* Strong Pre-Bent Aluminum Landing Gear
- \* Formed Wire Cabane Struts
- \* Die-Cut Balsa Ribs With Integral Jigs
- \* Die-Cut Plywood Parts
- \* Handy Printed Fuselage Sides
- \* Sig Quality Balsa and Plywood
- \* Colorful Decals

KIT RC-34

**SIG**

1ST, 2ND AND 4TH ADVANCED BIPLANE AT 1976 MULTIWING CHAMPIONSHIPS  
1ST SPORTSMAN BIPLANE AT 1977 SIG IMAC CHAMPIONSHIPS  
1ST SPORTSMAN BIPLANE 1978 SIG IMAC CHAMPIONSHIPS

**LIBERTY  
SPORT**

Designed by DICK GRAHAM

**SIG**  
KIT RC-33



Wing Span: 57"  
Length: 45"  
.60 Size Engine  
Requires a 4 Channel Radio

An exact scale model that is not difficult to build and flies like a sport design. Features balsa fuselage and wing. Kit includes three views and photos of the prototype.

**RYAN STA**

AN EXACT SCALE MODEL OF JOHN  
GOSNEY'S AEROBATIC RYAN



Kit RC-27  
Wing Span: 72"  
.60 Size Engine  
Requires a 4 - 5 Channel Radio

This kit features partially shaped fuselage sides, Sig aluminum motor mounts, formed landing gear, decal sheet, 43 formed plastic parts, and quality Sig balsa for structure and planking.

SIG72003	SIG #RC-3 PIPER J-3 CUB	49.95	39.95	95
SIG74027	SIG #RC-27 RYAN STA	87.95	69.95	95
SIG74033	SIG #RC-33 LIBERTY SPORT	79.95	63.95	95
SIG74034	SIG #RC-34 SKYBOLT	77.50	61.95	95



## SIG

# SMITH MINIPLANE

Designed by MIKE GRETZ

## RC SPORT SCALE BIPLANE

### SMITH MINIPLANE KIT FEATURES:

- \* Molded ABS Plastic Cowling and Wheel Pants
- \* Die-Cut Balsa Ribs and Formers
- \* Die-Cut Plywood Parts
- \* Sig Quality Balsa and Plywood
- \* Pre-Bent Landing Gear Wires
- \* Formed Wire Cabane Struts
- \* Formed Aileron Torque Rods
- \* Colorful Decals
- \* Large Full-Size Plan
- \* Illustrated Step-by-Step Instructions with Isometric Assembly Drawings
- \* Pictures of the Full-Size Airplane

### HARDWARE PACKAGE INCLUDES:

- \* Molded Control Hinges
- \* Nylon Control Horns
- \* Nylon Tail Wheel Bracket
- \* Nylon Bolts for Bolt on Upper and Lower Wing attachment
- \* Tuf-Steel RC Links and Threaded Rods
- \* Aluminum Motor Mounts
- \* Blind Nuts, Bolts, Screws, Etc.

KIT RC-38

RADIO: 4 Channel  
ENGINES: .40 to .45 Cu. In.  
TOP WING SPAN: 44"  
TOTAL WING AREA: 650 Sq. In.  
LENGTH: 40-3/8"

1ST SPORT SCALE 1976 NATIONAL MULTIWING CHAMPIONSHIPS  
1ST SPORT SCALE 1976 CANADIAN NATIONAL CHAMPIONSHIPS  
1ST SPORTSMAN BIPLANE 1979 SIG IMAC CHAMPIONSHIPS



# CLIPPED WING CUB

### KIT FEATURES:

- Molded Control Hinges
- Strong One-Piece Wing
- Stable Design
- Molded Landing Gear
- Aluminum Engine Mounts
- Die-Cut Sig Balsa and Plywood
- Full-Size Detailed Plans
- Die-Cut Windshield
- Trademark and Number Decals
- Built-Up Balsa Construction
- Removable Wing Struts



KIT NO. RC-26  
RADIO: 4 Channel  
WING SPAN: 56"  
LENGTH: 42"  
FOR ENGINES: .19-.40

# CITABRIA

### KIT FEATURES:

- Molded Plastic Cowling (3-Piece, Authentic Scale Appearance)
- Molded Plastic Wheel Pants
- Nylon Control Horns & Bellcranks
- Nylon Wing Attachment Screws
- Removable Wing Struts
- Full-Length Fuselage Sides
- Aluminum Motor Mounts
- Formed Aluminum Landing Gear
- Die-Cut Windshield
- Authentic Decals
- Full-Size Plans
- Die-Cut SIG Balsa & Plywood

4 TIMES NATIONALS  
RC SCALE CHAMPION!  
EASY TO BUILD — EASY TO FLY

RC-30  
RADIO: 4 Channel  
WINGSPAN: 69"  
ENGINES: .40-.50 Size  
WING AREA: 740 Sq. In.



SIG72026	SIG #RC-26 CLIPPED WING CUB	49.95	39.95	96
SIG73030	SIG #RC-30 CITABRIA	72.50	57.95	96
SIG73038	SIG #RC-38 SMITH MINIPLANE	59.95	47.95	96



## SIG

# P-51 MUSTANG

**RADIO:** 4-6 Channel  
**ENGINE:** .60 Size  
**WING SPAN:** 64"  
**WING AREA:** 700 Sq. In.  
**WEIGHT:** 7 Lbs.

**KIT FEATURES:**  
 SIG Quality Balsa and Plywood  
 Formed Plastic Fuselage Halves  
 Precision-Cut Foam Wing Core  
 Rugged Plastic Cowling  
 Clear Canopy with Framing  
 Formed Plastic Wing Tips  
 Solid Balsa Internal Profile  
 Sheet Balsa Tail Surfaces  
 Pre-Bent Torsion-Bar Landing Gear  
 Decorative Decal Sheet  
 Step-By-Step Instructions  
 Hardware Pack

*FEATURING FORMED ABS PARTS THAT  
 ARE EASY TO GLUE AND PAINT!*



# Cessna 150

**FOR RC SPORT SCALE AND SPORT FLYING**

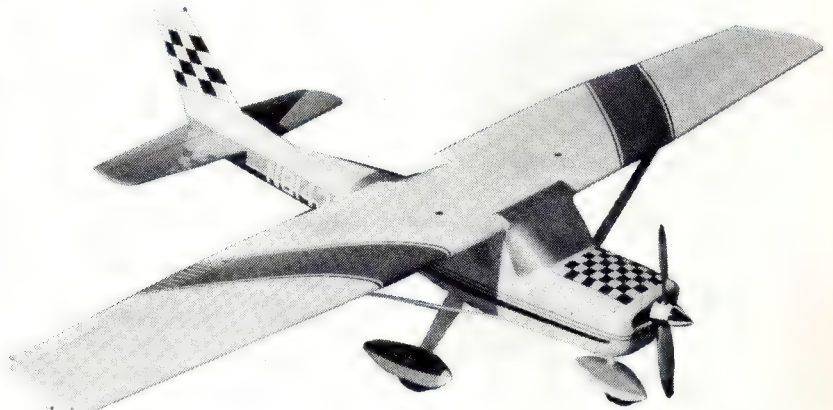
**FEATURING ABS PARTS THAT ARE EASY TO GLUE AND PAINT**

**CESSNA 150 WITH  
 ACCESSORY WINDOWS INSTALLED**

**KIT FEATURES:**

Molded Plastic Fuselage Sides  
 Molded Plastic Skin Covering for Aileron  
 And Flaps With Realistic Crimping  
 Cessna Factory 3-View Drawing  
 Formed Plastic Fuselage Halves  
 Door And Window Detailing  
 Molded Plastic Engine Cowling  
 Molded Wheel Pants  
 Precision-Cut Foam Wing Core  
 Formed Plastic Wing Tips  
 Solid Balsa Internal Fuselage Profile  
 Sheet Balsa Tail Surfaces  
 Formed Aluminum Main Gear  
 Strong Coil-Spring Nose Gear

Decorative Decal Sheet  
 Step-By-Step Instruction Book  
 Die-Cut Plywood Parts  
 Sig Quality Balsa  
 Molded Nylon Control Horns  
 Molded Plastic Hinges  
 Tuf-Steel RC Links and Rods  
 Double Coated Servo Mounting Tape  
 Aluminum Motor Mounts  
 Nylon Nose Gear Bearing And Steering Arm  
 Nylon Wing Screws  
 Blind Nuts And Bolts  
 Assorted Small Hardware



**KBRC-4**  
**ENGINES:** .50 -.60 Size  
**WING SPAN:** 65"  
**WING AREA:** 645 Sq. In.  
**WEIGHT:** 7½ Lbs.  
**RADIO:** 4 - 5 Channel

# SUPER CHIPMUNK

**BUILDS FAST!**

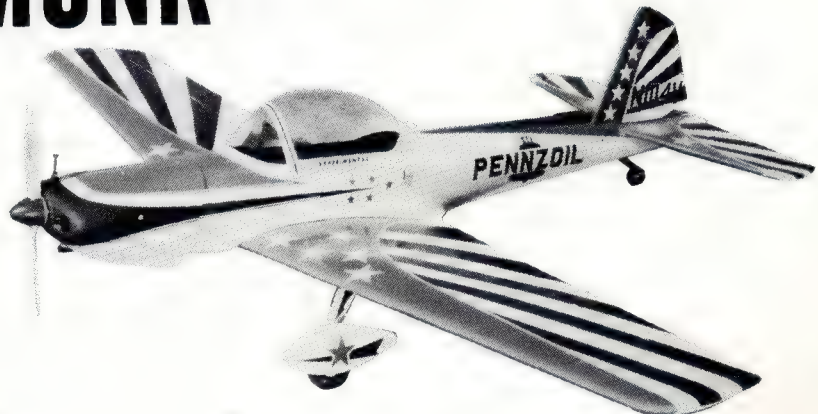
**FLIES LIKE A PATTERN SHIP!**

**LOOKS LIKE A SUPER-SCALE!**

**KIT FEATURES:**

SIG Quality Balsa and Plywood  
 Formed Plastic Fuselage Halves  
 Precision-Cut Foam Wing Core  
 Rugged Plastic Cowling  
 Clear Canopy with Framing  
 Formed Plastic Wing Tips  
 Sheet Balsa Tail Surfaces  
 Pre-Bent Torsion-Bar Landing Gear  
 Decorative Decal Sheet  
 Step-By-Step Instructions  
 Hardware Package

**RADIO:** 4 Channel  
**WING SPAN:** 64"  
**WING AREA:** 660 Sq. In.  
**WEIGHT:** 6½ Lbs.



SIG74001	SIG #KBRC-1 SUPER CHIPMUNK	69.95	55.95	97
SIG74002	SIG #KBRC-2 P-51 MUSTANG	69.95	55.95	97
SIG74004	SIG #KBRC-4 CESSNA 150	82.50	65.95	97



## SIG

BEECHCRAFT

# BONANZA

Designed by HANK POHLMANN

RC SPORT FLYING

RC SPORT SCALE



For .60 Engines  
64" Wing Span  
44" Length  
652 Sq. In. Wing Area  
7-1/2 lbs. Approx. Weight  
8-1/2 lbs. Approx. Weight with Retracts  
Requires a 4 Channel Radio

FULL SIZE PLAN LAYOUT FOR RETRACTS

FOAM WING CORES WITH TIP CAMBER AND WASHOUT



*New!*

Full-Length Formed Plastic Fuselage Top  
Molded Clear Windshield and Windows  
Formed Plastic Cowling  
Precision-Cut Foam Wing Core  
Handy Printed Fuselage Sides -  
Build Directly on the Wood  
Formed Wire Landing Gears  
Die-Cut Plywood Parts

Sig Quality Balsa and Plywood  
Large Full-Size Plan  
Decal Sheet  
Illustrated Step-by-Step  
Booklet  
Photos of Full-Size BONANZA  
Nylon Control Horns

Nylon Screws for Bolt-On  
Wing Attachment  
Molded Plastic Hinges  
Tuf-Steel R-C Links  
Aluminum Motor Mounts  
Blind Nuts, Screws and Other  
Small Hardware

CESSNA  
Skyhawk 172

Designed by HANK POHLMANN

**KWIK BILT™**



**KIT FEATURES:**

Cessna Factory 3-View Drawing  
Formed Plastic Fuselage Halves  
Realistic Cessna Crimping for Ailerons,  
Flaps and Elevators  
Formed Clear Windows  
Molded Plastic Engine Cowling  
Molded Wheel Pants  
Precision-Cut Foam Wing Core  
Solid Balsa Internal Fuselage Profile  
Sheet Balsa Tail Surfaces  
Formed Aluminum Main Gear  
Strong Coil-Spring Nose Gear  
Decorative Decal Sheet  
Step-By-Step Instruction Book  
Die-Cut Plywood Parts  
Sig Quality Balsa  
Molded Nylon Control Horns  
Molded Plastic Hinges  
Tuf-Steel RC Links and Rods  
Double Coated Servo Mounting Tape  
Aluminum Motor Mounts  
Nylon Nose Gear Bearing and Steering Arm  
Nylon Wing Screws  
Blind Nuts and Bolts  
Assorted Small Hardware



REQUIRES A 4 CHANNEL RADIO

- \* EXACT SCALE OUTLINES
- \* SMOOTH AND STABLE
- \* RESPONSIVE TO CONTROL
- \* BUILDS FAST
- \* 4 OR 5 CHANNEL RADIO

ENGINE SIZE: 60 CU. IN.  
WING SPAN: 65 IN.  
WING AREA: 645 SQ. IN.  
WEIGHT APPROX: 7-1/2 - 8 LBS.

*New!*

SIG74005 #KBRC-5 CESSNA SKYHAWK 172  
SIG74041 SIG #RC-41 BEECHCRAFT BONANZA

89.95	69.95	98
77.50	61.95	98



**SIG**

Designed by CLAUDE McCULLOUGH

# KOUGAR

## ADVANCED TRAINER

*Teaches The Novice  
To Fly Like A Champion*

- \* Smooth Control Response
- \* Symmetrical Wing Section
- \* Fully Aerobatic
- \* Compact Size
- \* Built-In Anti-Stall Stability



Wing Span: 51"  
Wing Area: 550 Sq. In.  
Length: 45½"  
.35 - .50 Size Engine  
Requires a 4 Channel Radio

**KIT FEATURES:**

Precision Cut Foam Wing  
Handy Printed Fuselage Sides - Build  
Directly on the Wood  
Formed Plastic Fuselage Top  
Jet Style Canopy with Molded Framing  
Molded Plastic Cowling  
Sheet Balsa Wing Covering  
Sheet Balsa Tail Surfaces  
Rugged, Ready-Bent Landing Gear  
Die-Cut Plywood Parts  
Step-By-Step Instructions  
Isometric Assembly Drawings  
U.S.A.F. Thunderbird Aerobatic Team Decals

**SIG**  
KIT RC-35

Hardware  
Package  
Included

A carefully tailored design that will do every stunt in the book - even the lomcevak - and yet is not difficult for low-time pilots to handle. The wash-out incorporated into the foam wing allows the model to be slowed down to a walk for the landing approach and flared onto the runway in a main-gear-first touchdown without undue stalling or snap-rolling tendencies. The Kougarc is highly recommended as an introduction to low-wing flying and AMA pattern competition.

SIG73035 SIG #RC-35 KCOUGAR MKII

52.50 41.95 99

## SPICKLER

**LIGHT, STABLE, EASY TO FLY**

Area 500"  
Span 50"  
Weight 3½ Lbs.  
Power 19 to 55  
(40 for racing)

**BUILDS - FAST**

Ideally Suited To Fun-Fly  
Events And Sunday Sport  
Requires a 4 ch. radio



**"Quickie  
500"**  
THE ORIGINAL  
500 CLUB RACER

The strong, lightweight construction of precision machined, selected balsa and plywood parts makes this kit fast-to-build, yet provides the extra strength required for flying fun.

Glen Spickler  
Radiomodels



4208 Santa Cruz St.  
Bakersfield Ca. 93307

**QUICKIE 200**

34½" Wing Span  
208½ Sq. In Total Wing Area  
.049 - .051 Size Engine  
Requires a 2 Channel Radio

This balsa and foam kit is a quick and easy plane to build. All parts are pre-shaped. The foam wing panels have pre-cut dihedral angles, trailing edges and servo cutouts. Kit includes landing gear, aileron horns, tail skid, elevator horn, and hinge material.

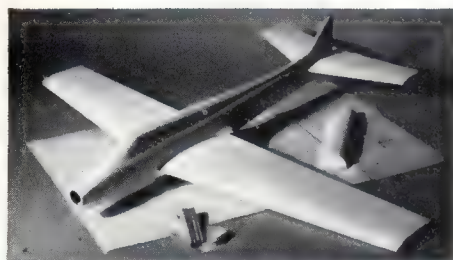
SPI72200 SPICKLER QUICKIE 200  
SPI73500 SPICKLER QUICKIE 500 KIT

19.95 16.95 99  
43.95 34.95 99



# MODEL AIRPLANE KITS

## SKYGLAS



**VERTIGO II #SKY74001**

Span 65"

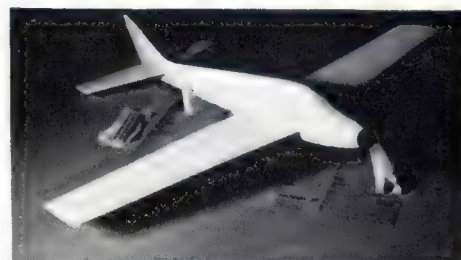
Engine .60



**P-47N #SKY74002**

Span 62"

Engine .60-.80



**PHOENIX 6 #SKY74003**

Span 63"

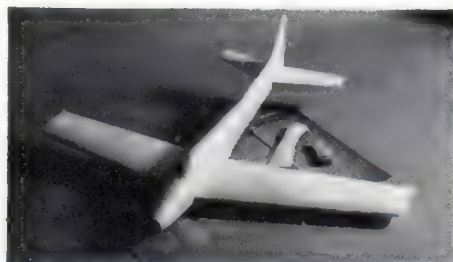
Engine .60



**F8F BEARCAT #SKY74004**

Span 64"

Engine .60



**PHOENIX 5 #SKY73102**

Span 55"

Engine .40



**"40" ME-109**

Stand-Off Scale

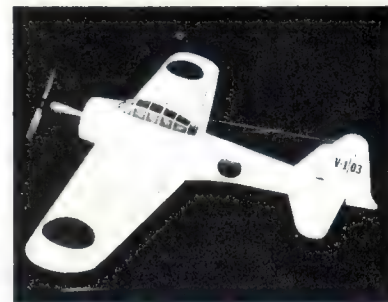
Fuselage Length 36"

Wing Span - Taper 50"

Tail Dragger - Gear

### EACH KIT INCLUDES:

- Clear gel-coated fuselage
- Firewall and motor mounts installed
- Styrofoam wing and stab
- Landing gear blocks
- Fiberglass tape
- Plans
- Fiberglass belly pan



**"ZERO"**

Stand-Off Scale

Wing Span 51"

Engine "40"

**NOTE:** These kits do not include any wing sheeting, balsa, or hardware.



**CUREARE**

Engine "60"

Tricycle Gear

Wing Span 64½"

Fuselage Length 56"

SKY73100	SKYGLAS ME-109 - .40	55.00	39.95	100
SKY73101	SKYGLAS ZERC - .40	55.00	39.95	100
SKY73102	SKYGLAS PHOENIX 5	55.00	39.95	100
SKY74000	SKYGLAS CUREARE	70.00	49.95	100
SKY74001	SKYGLAS VERTIGO II	70.00	49.95	100
SKY74002	SKYGLAS P-47N THUNDERBOLT	70.00	49.95	100
SKY74003	SKYGLAS PHOENIX 6	70.00	49.95	100
SKY74004	SKYGLAS F8F BEARCAT	70.00	49.95	100



## SOUTHWESTERN

### Gypsy Lady

Our first conventional-wing model. 50" span, 450 sq. in. area, for one to three-channel RC. Machined balsa and hardwood parts, full-size plans, formed landing gear, all hardware. A docile, realistic sportplane for .15 to .29 engines. Excellent ground handling characteristics.



36" Wingspan

### Honker Biplane

The Honker Biplane kit can be finished, ready for covering, in three to four hours. Large enough to handle miniature four channels, it can be flown safely on rudder-only and a gentle .09. Spectacular aerobatic potential using rudder-elevator-motor control with a .19 to .25 engine. Finished wing panels, machined plywood struts and preformed landing gear shorten assembly time. Optional ailerons on bottom wing.

### Honker 1/2 A

The original grass-field sportplane, Honker can be built as a single or two channel model. Mild performance on a Babe Bee or similar .049. Probably the fastest kitted Half-A when powered with a Kircraft Tee Dee. (Not legal for Half-A pylon due to its thin wing section.) Two to three hour assembly time. Can be flown three channel using Cox motor control assembly and Medallion .049. For all miniature proportional radios.

The Honker Biplane and the Honker 1/2A both come with a unique solid wood wing that requires no building.

36" Wingspan



### Li'l Gypsy

A gentle and realistic flier for .049 engines and one or two-channel radios. Same pre-shaped and hand-sanded balsa wing as Honker and Honker Biplane kits. Kit contains preformed landing gear, shaped and machined balsa and hardwood parts, all hardware and very complete building instructions. 3-4 hour assembly.

36" Wingspan



SCU72002	SOUTHWESTERN HONKER 1/2A
SCU72003	SOUTHWESTERN HONKER BIPE
SCU72005	SOUTHWESTERN LI'L GYPSY
SCU72006	SOUTHWESTERN GYPSY LADY

21.95	17.50	101
34.95	26.75	101
22.95	18.35	101
35.95	27.50	101



## STAFFORD

### AIRCOUPE



Standoff Scale Sportster  
53" Span - .40-.60 Size Engine  
610 Sq. In. Area Foam Wing  
Molded Canopy Formed Gear  
Fixed Gear-Retract Installation Shown

### P-39 AIRACOBRA



63" Span .35-.60 Size Engine  
Molded Cowl - Formed Canopy  
And Gear - Scale 3 View  
Select Pre-cut Balsa and Plywood

### THE LIBERATORS

ARE HERE!

AN AUTHENTIC FLYING REPRODUCTION  
OF THE B-24D STRAWBERRY BITCH



#### SPECIFICATIONS

- \* WING SPAN - 90 INCHES (7 1/2 FEET)
- \* OVERALL LENGTH, LESS ARMAMENT, 54 1/2 INCHES
- \* WING AREA - 740 SQUARE INCHES (OVER 5 SQUARE FEET)
- \* POWER - FOUR 15 TO 25 ENGINES
- \* SCALE - 13 1/16 INCHES EQUALS 1 FOOT (1:14.7 FULL SIZE)
- \* WEIGHT - 9 TO 12 POUNDS DEPENDING ON OPTIONS AND FINISH
- \* AIRFOILS - AUTHENTIC DAVIS PROGRESSIVE SECTIONS WITH BUILT IN TWIST
- \* WING LOADING - 32 OZ PER SQUARE FOOT, LESS FLAPS
- \* BOMB BAY - 275 CUBIC INCHES
- \* EFFECTIVELY USES A FULL SEVEN CHANNEL RADIO

#### OPERATIONAL FEATURES

- \* FULL SCALE FREEZE TYPE CONTROL SURFACES, AUTHENTICALLY HINGED WITH LIGHT-WEIGHT NYLON PIVOTS.
- \* RETRACTABLE TRICYCLE LANDING GEAR, WITH STEERABLE NOSE WHEEL.
- \* OPERATING FOWLER FLAPS GENTLY ARC BACK AND DOWN ON UNIQUE TRACKS, TO PROVIDE EFFECTIVE AIRFOIL CHANGE, AND A 10% INCREASE IN WING AREA.
- \* RETRACTABLE SPERRY BALL TURRET SLAVED TO THE GEAR SYSTEM TO PROVIDE NECESSARY LANDING CLEARANCE.
- \* FOUR ROLLTOP DESK TYPE OPERATING BOMB BAY DOORS COMPLETE WITH COCKPITS

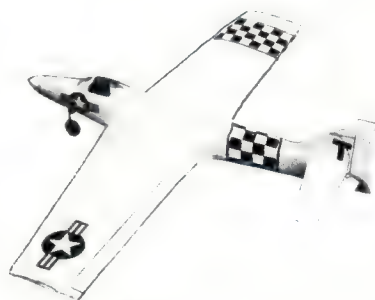
### THE WEEKENDER

SEMI-SCALE  
SPORTSTER & RUGGED  
BASIC TRAINER

63" SPAN - 800 SQ. IN. AREA - 40-60 ENGINES  
FOAM WING PANELS  
1 4 SHEET Balsa BOX FUSELAGE



### THE TOMKITT'S

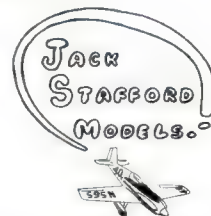


TOMKITT MK 40

35 TO 40 ENGINES SPAN 55"  
AREA 550 SQ. IN. WEIGHT 4 TO 5 1/2 LBS.  
FIXED GEAR, RETRACTS SHOWN  
AVAILABLE WITH:

FOAM CORE & Balsa SKINS.

JET AGE STYLING  
BUILD IT CHOP NOSE OR SPINNER  
SWEEP WING & PROGRESSIVE AIRFOIL  
FOR SUPERB HANDLING OVER A  
WIDE SPEED RANGE UPRIGHT OR  
INVERTED. BASIC BOX FUSELAGE,  
SHEET TAIL, SIMPLIFIED WING  
CONSTRUCTION, COMPLETE DRAWINGS  
INSTRUCTIONS & PHOTO AIDS.  
PREMIUM MACHINED Balsa, HARDWOOD  
FORMED GEAR, CANOPY & BASIC  
HARDWARE PACKAGE.



#### CONSTRUCTION

- \* SEMI-MONOCOQUE Balsa FUSELAGE USING WRAPPED SHEET AND LOFTED CORNERS FOR QUICK ASSEMBLY AND MINIMUM CARVING ON OUR TIME PROVEN BOX TOP BUILDING JIG.
- \* NO TEDIOUS HEAVY PLANKING OR BLOCKS TO CARVE AND HOLLOW.
- \* SCALE LIKE PLYWOOD RING FRAMES IN VISIBLE AREAS.
- \* COMPOSITE WING DESIGN UTILIZING THE BEST OF FOAM AND Balsa TECHNIQUES FOR THE HI ASPECT RATIO DAVIS WING WITH ITS MANY CUTOUTS.
- \* RIB AND SHEET COVERED TAIL SURFACES TO FAITHFULLY REPRODUCE THE SCALE AIRFOILS AT A REASONABLE WEIGHT.
- \* MOLDED COWLS, CANOPIES, TURRETS TO PROVIDE AUTHENTIC CONTOURS WITH MINIMUM EFFORT.

#### ENGINEERING

- \* 21 YEARS OF RESEARCH DESIGN AND TESTING.
- \* OVER 20 SQUARE FEET OF ENGINEERING DRAWINGS PACKED WITH FULL SIZE COMPONENTS, DETAILS AND VIEWS.
- \* SEPARATE DETAILED 24X36 SCALE 3 VIEW.
- \* FULLY ENGINEERED STRUCTURE TO MAXIMIZE LOAD CAPABILITY AT MINIMUM WEIGHT IN A DIFFICULT VIBRATION ENVIRONMENT.
- \* PERSONALIZED HAND BOOK WITH OVER 350 DETAILED STEP BY STEP INSTRUCTIONS COVERING CONSTRUCTION, PAINTING, ASSEMBLY AND FLYING.
- \* STEP BY STEP CONSTRUCTION PHOTOS
- \* INTERIOR DETAIL DRAWINGS AND PHOTOS.
- \* EXTERIOR DETAIL PHOTOS AND AUTHENTIC PAINT FORMULAS.

#### CONTENTS

- \* 200 PRECUT Balsa, PLYWOOD AND BIRCH DETAILS, FOAMWING CORES WITH PRECUT PUSHROD WAYS.
- \* 15 SQUARE FEET OF PREMIUM FULL LENGTH Balsa WING AND TAIL SKINS.
- \* MODIFIED GOLDBERG RETRACTABLE TRICYCLE GEAR.
- \* 9 MOLDED CLEAR PLASTIC CANOPIES AND TURRETS.
- \* 4 MOLDED ABS COWLS WITH EXTENDED COWL FLAPS.
- \* 9 INJECTION MOLDED MACHINE GUN ASSEMBLIES, 11 SEPARATE PIECES EACH INCLUDING HANDLES, MOUNTS, TRIGGERS AND BLAST SHIELDS.
- \* 4 MOLDED DETAILED TURBO CHARGERS.
- \* MOLDED STEERING WHEELS AND TURRET SHELL DEFLECTORS.
- \* MISCELLANEOUS FLAP TRACKS, NYLON TUBING AND BASIC HARDWARE.
- \* 5 COLOR DECALS INCLUDING CORRECT ERA RED BANDED STARS AND BARS, THE ELUSIVE LADY, HER SIGNATURE AND SQUADRON MARKINGS.

FOUR AIRPLANES WORTH OF MATERIAL, DETAILS, ENGINEERING, INSTRUCTIONS AND ENJOYMENT FOR THE PRICE OF TWO



## STAFFORD

R/C SCALE

### Chipmunk

59 SPAN - 40 - 60 ENGINES  
MOLDED COWL & PANTS  
FORMED CANOPY & MAIN GEAR  
FOAM CORE WING



### COMANCHE

72 SPAN - 49 - 65 ENGINES  
MOLDED COWL - FUSELAGE ASSEMBLY JIG  
FORMED GEAR SCALE 3 VIEW



### SPERRY MESSENGER

44 INCH SPAN - 35 - 60 ENGINES FULLY AEROBATIC  
MOLDED COWL & DUMMY CYLINDERS - FORMED GEAR - SCALE 3 VIEW



### COMANCHE Twin



72 SPAN 9-1/2 lbs. 50 LENGTH 775 AREA

- \* For two 40 engines, mufflers & scale exhaust, fully cowl-  
ed, in spacious nacelles with room for big tanks
- \* Complete set of precision molded fittings
- \* Complete full size drawings, photos & instructions, includ-  
ing: both wing panels, flap & retract gear installation, and  
full scale interior details

R/C SCALE

### SUPER BUCCANEER

FROM THE GOLDEN AGE OF AIR RACING THE 1936 SUCCESSOR TO MISS LOS ANGELES --  
THE LAST AND BEST OF THE BROWNS

SPAN 43 AREA 305  
15 to 23 ENGINES



AVAILABLE WITH  
FOAM WING FOR QUARTER MIDGET RACING

### EAA ACRO SPORT

50" SCALE SPORT PATTERN FOR 40 ENGINES  
SIMPLIFIED Balsa & Spruce Construction  
Box Top Jig-Molded Cowl-Pants-Windshield



#### EAA ACRO SPORT

A HONEY OF A HIGH PERFORMANCE AIRCRAFT  
FOR BIPLANE PATTERN AND STANDOFF SCALE  
FOR 40 to 60 ENGINES & 4 CHANNEL R/C GEAR  
WING SPAN 50 IN. LENGTH 43 AREA 770 SQ. IN.  
DRY WEIGHT 6 TO 7 LBS. SCALE 2-9 16 IN - 1 FT.  
COMPLETE DRAWINGS INCLUDING FULL LAYOUT FOR BOTH WINGS  
STEP BY STEP INSTRUCTIONS FOR BUILDING AND FINISHING  
A FULL PAGE OF PHOTO AIDS DETAILING CONSTRUCTION  
FULLY DETAILED ENGINE, MUFFLER & RADIO INSTALLATION  
SCALE THREE-VIEW - BOX TOP ASSEMBLY JIG FOR FUSELAGE  
INJECTION MOLDED COWL AND WHEEL PANTS FORMED WINDSHIELD  
ACCURATE PREFORMED WIRE LANDING GEAR AND CABANE STRUTS  
SIMPLIFIED Balsa SPRUCE & PLYWOOD, SHELL FUSELAGE CONSTRUCTION  
BOLTED WING INSTALLATION WITH UNIQUE REMOVABLE CABANES  
MACHINED & SANDED QUALITY Balsa-BIRCH PLYWOOD AND SPRUCE  
WIDE TRACK LANDING GEAR FOR EASY TAKEOFF AND LANDINGS  
SCALE FOUR AILERON INSTALLATION FOR PRECISION AEROBATICS  
SIDE MOUNTED ENGINE FOR QUICKER STARTS WITH GOOD COOLING  
SPACIOUS FUSELAGE FOR LARGE TANKS AND ANY RADIO EQUIPMENT  
AVAILABLE WITH BUILT-UP RIBBED OR FOAM WINGS

STA72C00	STAFFORD B-24C LIBERATOR	199.95	149.95	102
STA72011	STAFFORD BUCCANEER -FOAM WING	44.95	35.95	103
STA73040	STAFFORD TOPKITTY MK-40 FOAM	64.95	49.95	102
STA73100	STAFFORD TWIN COMANCHE Balsa	149.95	112.95	103
STA74C04	STAFFORD P-39 AIRACOBRA FOAM	69.95	53.95	102
STA74C05	STAFFORD COMANCHE -Balsa WING	89.95	69.95	103
STA74C06	STAFFORD ACRC SPT -FOAM WING	89.95	69.95	103
STA74C07	STAFFORD ACRC SPT -Balsa WING	89.95	69.95	103
STA74C08	STAFFORD CHIPMUNK -FOAM WING	89.95	69.95	102
STA74009	STAFFORD AIRCOUPE -Balsa WING	89.95	69.95	102
STA74010	STAFFORD WEEKENDER -FOAM WING	69.95	53.95	102
STA74011	STAFFORD SPERRY MESSENGER-Balsa	69.95	53.95	103



## STERLING



Kit FS-2. CESSNA "180"  
Wingspan 45" Engines .09 to .35



### PIPER TRI-PACER



#### Another Great R/C Kit

Kit FS-1 PIPER TRI-PACER  
58 3/4" Span .19 -.35 Engine  
Kit FS-37 PIPER TRI-PACER  
44" Span .049 -.10 Engine

### FLEDGLING



Kit FS-29 FLEDGLING  
56" Span .23 -.40 Engine

### STEARMAN PT-17



*A magnificent, scale World War 2 kit!*

Kit FS-20 STEARMAN PT-17  
64 1/2" Span .56 -.70 Engine

Medium Size Super Detail W. W. 1 Fighter — Scale

World famous Cub seen at all Airports — Scale

Majestic Flying Sport Plane — Scale



Kit FS-22 S. E. 5a  
Wingspan 40 3/8" Engines .19 to .35



Kit FS-21 FOKKER D-VII  
Wingspan 58 1/2" Engines .45 to .70



Kit FS-8 PIPER SUPER CRUISER  
Wingspan 72" Engines .29 to .60



Kit FS-6 PIPER CUB J-3  
Wingspan 54" Engines .09 to .35



Kit FS-31 CITABRIA  
Wingspan 54" Engines .23 to .35



Kit FS-32 GAZARIATOR  
Wingspan 68" Engines .50 to .61



Kit FS-33 STINSON RELIANT  
Wingspan 57 3/4" Engines .29 to .40



Kit FS-34 WACO S.R.E.  
Wingspan 56 1/2" Engines .40 to .60



Kit FS-35 MINI-FLEDGLING  
Wingspan 40" Engines .049 to .051



**STERLING**

**Chance Vought F4U-1A**

**CORSAIR**



**Kit FS-36**  
**Wing Span 36"**

**36" Stand-Off Scale R/C Model**

**About The Airplane:**

The prototype XF4U-1 was first flown on March 29, 1940. The Corsair was to become the most important Naval Attack Fighter of W.W. II, and remain in production for 13 years, yet its first service trials had ended in failure in its chosen role. It did not reach maturity as a great fighting machine easily. It gave notice that it was to be flown and tested at all times like a true racing stallion, and was an airplane for inexperienced pilots to reckon with. Because it was an advanced design—and had a new and untried high horsepower engine the Corsair required many perplexing and difficult flight tests and service changes before assuming the role of the Navy's first line fighter.

The Chance Vought Corsair had a service life spanning two wars, performing every conceivable mission possible for a military flying machine. The Corsair had a 15 year life span of battle victories unequalled in the annals of aviation history. Vought ceased production of the F4U-1 Model on Feb. 2, 1945 with the delivery of the 4,996th airplane. In air-to-air combat the Corsair had destroyed 2,140 enemy aircraft with the loss of 189.

The Corsair's distinctive whistling war cry, caused by the wing-root inlets for engine air, earned it the nickname "whistling death" among the Japanese.

The Corsair's most unique feature was the bent (gull) wing which was necessitated by the most powerful engine ever installed in a piston-engined fighter, coupled with one of the largest props in the world. Thus the inverted gull-wing permitted the short, sturdy landing gear required for carrier operations.

The first combat unit to receive the Corsair was VMF-124 and the first 12 machines arrived at Henderson Field on Guadalcanal on Feb. 12, 1943. On Feb. 13, VMF-124 demonstrated their superiority over the Wildcat by escorting PB4Y-1 Liberators all the way to Bougainville. The following day they saw combat for the first time, and the inexperienced Corsair pilots were badly mauled by some 50 Zeros. Two Corsairs, two Liberators, two P-40s and four P-38s were lost in this "Saint Valentine's Day Massacre", but the Corsairs soon gained superiority over the Japanese which was never lost. VMF-124 was subsequently credited with 68 kills against a loss of four aircraft and three pilots. Within six months, all Pacific-based Marine Fighter Squadrons had been re-equipped with the Corsair and the list of aces and the airplanes legend began to grow.

**About The Kit:**

Designed expressly for 2 channel R/C with plenty of room for just about any R/C up to 4 channel miniature units. Maintaining top quality and simple construction, (even the inverted gull wing), all Balsa and Plywood parts are accurately die-cut. Hardware Package including R/C Hardware, full-size step-by-step Plans and a flat finish Decal sheet for Major Gregory "Pappy" Boyington's Lulubelle as it appeared after the Oct. 17, 1943 raid on Kahili Airfield, Solomons. Recommended engine sizes for maximum performance .09 or .10. Minimal performance achieved with stock .049 or .051 Tee Dee. Diesel conversion of Tee Dee Engines is suggested.

Sterling kits are die cut balsa. Hardware, decals, canopies, etc. are included as needed in all kits.

STF2001	STERLING FS-1 TRI-PACER 19-35	44.95	33.70	104
STF2002	STERLING FS-2 GESSNA 180	29.95	23.95	104
STF2006	STERLING FS-6 PIPER CUB J-3	33.95	26.95	104
STF2022	STERLING FS-22 S.E.5A	56.95	42.70	104
STF2029	STERLING FS-29 FLEDGLING	48.95	35.95	104
STF2031	STERLING FS-31 CITABRIA	47.95	35.95	104
STF2035	STERLING FS-35 MINI-FLEDGLING	28.95	22.95	104
STF2036	STERLING FS-36 1/2 A CORSAIR	35.95	26.95	105
STF2037	STERLING FS-37 TRIPACER 049-10	33.95	26.95	104
STF2008	STERLING FS-8 PIPER CRUISER	64.95	48.70	104
STF2020	STERLING FS-20 STEARMAN PT-17	115.95	80.95	104
STF2021	STERLING FS-21 FOKKER D-VII	109.95	76.95	104
STF2032	STERLING FS-32 GAZARIATCR	73.95	53.60	104
STF2033	STERLING FS-33 STINSON RELIANT	74.95	63.70	104
STF2034	STERLING FS-34 WACO	83.95	58.75	104



## SUREFLITE ENTERPRISES

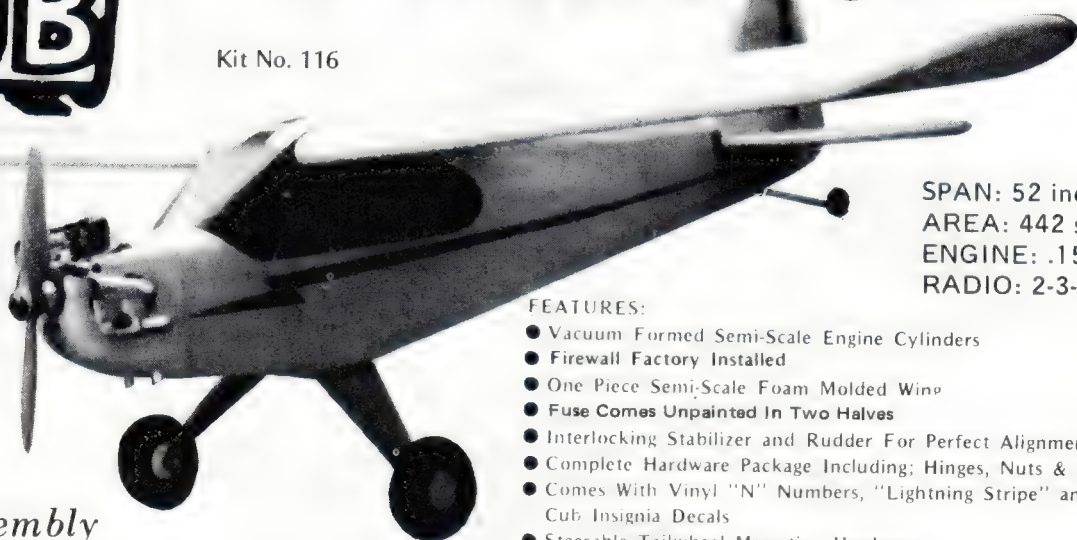


semi-scale Injection Molded All Foam Model

### PIPER J-3 CUB

Kit No. 116

*Ideal Trainer  
Lightweight  
Quick Final Assembly  
Easy For Anyone To Fly*



SPAN: 52 inches  
AREA: 442 sq.in.  
ENGINE: .15 — .19  
RADIO: 2-3-4 channel

#### FEATURES:

- Vacuum Formed Semi-Scale Engine Cylinders
- Firewall Factory Installed
- One Piece Semi-Scale Foam Molded Wing
- Fuse Comes Unpainted In Two Halves
- Interlocking Stabilizer and Rudder For Perfect Alignment
- Complete Hardware Package Including: Hinges, Nuts & Bolts
- Comes With Vinyl "N" Numbers, "Lightning Stripe" and Cub Insignia Decals
- Steerable Tailwheel Mounting Hardware, and Heavy Duty Semi-Scale Aluminum Landing Gear

### INJECTION MOLDED ALL FOAM CESSNA SKYLANE 182

Semi Scale

SPAN: 53"  
AREA: 420sq.in.  
POWER: .15 — .19 IDEAL  
RADIO: 2 to 4 CHANNELS  
WEIGHT: 50oz. (With 3 channel)



- Beautiful All-Foam Molded Parts
- One Piece Molded Fuselage

Kit No. 109

### P-39 AIRACOBRA



#### SPECIFICATIONS

SPAN: 46"  
AREA: 368 sq.in.  
ENGINE: .15 — .19  
RADIO: 3 — 4 channel

**ALL FOAM**

- VACUUM FORMED CANOPY & EXHAUST
- PRE-SHAPED WOOD PARTS
- PRE-FORMED WIRE PARTS
- MARKINGS

### 1/2A PIPER J-3 CUB

SPAN: 42 in.  
AREA: 250 sq.in.  
ENGINE: .049 - .051  
RADIO: 2 ch.  
Kit No. 124

*Ideal Trainer  
Lightweight  
Quick Final Assembly  
Easy For Anyone To Fly*

INJECTION MOLDED ALL FOAM  
EASY TO ASSEMBLE KIT





## SUREFLITE ENTERPRISES

BENNY HOWARD'S

### DGA-3 'PETE'

Injection Molded All Foam Kit  
A Classic 1930's Racer



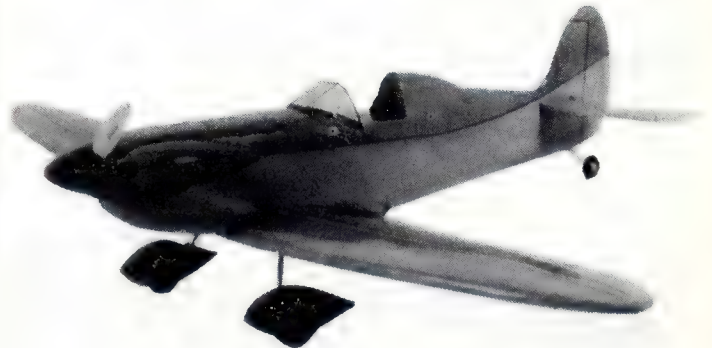
Photo of actual model.

Span: 36 inches  
Engine: .051 - .10  
Area: 250 sq.inches  
Radio: 2 channel

#### GREAT .10 POWERED CLUB RACER!

Features injection molded all foam fuselage, wings and stab; vacuum formed cowl, aluminum landing gear; decals; basic hardware; pushrod material; and complete instruction book.

### SPORT FIRE



The new Sport Fire is an all-foam-injection molded kit. This kit is designed for easy building and sport flying. Requires an .29-.40 size engine and a 4 channel radio. Comes complete with cheek cowlings, engine cover, headrest, windscreen, and wheel pants. In addition, the kit includes pre-formed wire and hardwood pieces.

*Supermarine*

### SPITFIRE INJECTION MOLDED ALL FOAM



#### EASY TO ASSEMBLE KIT

##### — FEATURES —

- All foam fuselage, wing and stabilizer • Molded clear canopy • Molded exhausts and radiators • Complete decal sheet and color notes • All hardware included • Bent wire landing gear •

KIT NO. 122



Photo of actual model.

Span: 50 inches  
Area: 450 sq.in.  
Engine: .29 - .40  
Radio: 4 channel



**SURE FLITE PRODUCTS**  
the little aircraft company

SLR72108	SUREFLITE 109 SKYLANE 182	44.95	32.95	106	SLR72124	SUREFLITE 124 1/2A J-3 FOAM	34.95	25.95	106
SLR72114	SUREFLITE 116 ALL FOAM J3 CUB	44.95	32.95	106	SLR73122	SUREFLITE 122 SPITFIRE-FOAM	44.95	32.95	107
SLR72123	SUREFLITE 123 DGA-3 PETE-FOAM	34.95	25.95	107	SLR73128	SUREFLITE 128 SPORT FIRE	44.95	32.95	107
					SLR73129	SUREFLITE 129 P-39 AIRACOBRA	44.95	32.95	106



## TOP FLITE

Standoff Scale is the newest and most exciting thing on the R/C scene! By subtle design, these models achieve truly excellent flying qualities, equal to sport or pattern R/C types, at no expense to the scale appearance.

Add to this, standard uncomplicated structural design, and it's easy to see why modelers everywhere have accepted this Dave Platt-designed series as "the only way to fly!"

SEE PAGE 113 FOR  
PRICES AND STOCK NUMBERS.

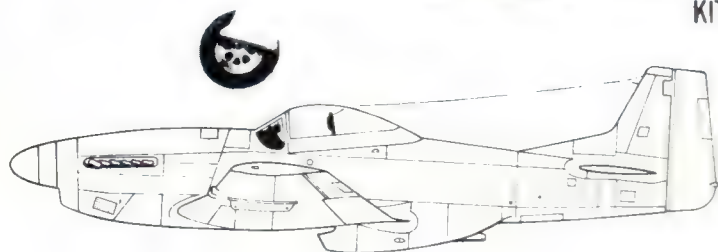
All kits feature balsa construction for strength and durability, and contain accurately machined & diecut wood parts, complete nylon and metal fittings, large full-color fuelproof decals, full-size plans and clear building instructions. Alternative color schemes are provided, all fully authenticated. Warhawk & 'Cobra feature plastic cowls; all kits have super-quality clear cockpit canopies.

**SPECS (ALL MODELS):** Span: 60", Area 600 sq. ins.; for .40 to .60 engines & 4 to 6 channel equipment.



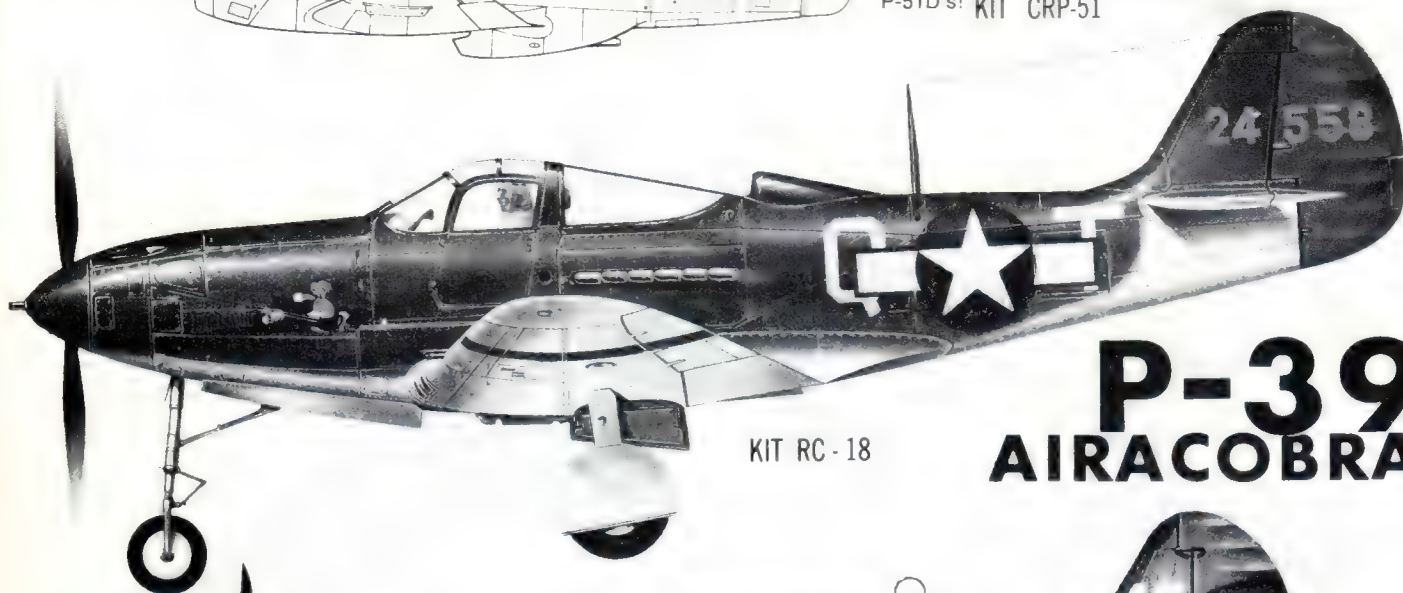
KIT RC-16

### P-51B MUSTANG



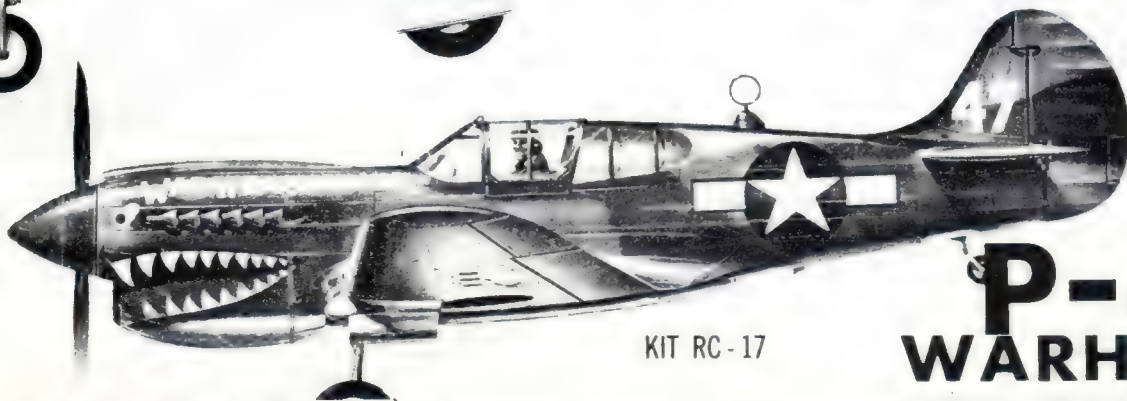
#### CONVERSION KIT FOR P-51D

Converts standard P-51B Mustang Kit into the bubble-hood D-version. Kit contains canopy, all necessary wood parts including turtledeck and new fin, full instructions and yet more color schemes for P-51D's! KIT CRP-51



KIT RC - 18

### P-39 AIRACOBRA



KIT RC - 17

### P-40 WARHAWK





TOP FLITE

The Sporty Way  
to Fly R/C

NEW

Top Flite's  
**HEADMASTER  
SPORT 40**

**SPECIFICATIONS:**

Wing Span ..... 60"  
Wing Area ..... 720 sq. in.  
Engine Size ..... .40 to .60  
Flying Weight ... 4¾ to 5½ lbs.  
Length ..... 51½ in.

PHOTO OF  
ACTUAL MODEL BUILT FROM KIT  
AND COVERED WITH SUPER MONOKOTE™

Here's THE model for Sunday/Sport fliers developed by noted writer, designer and Nationals champion Ken Willard. The Headmaster Sport 40 combines a sense of pride in building and enjoyment in flying.

With a .40 engine the Headmaster Sport 40 is a stable, reliable aircraft for the beginner who wants to learn to fly and later progress to aerobatics. Put a .60 up front and this same aircraft offers a full range of high performance up to advanced aerobatics.

All this versatility in one model? You Bet!

**Features include:**

- Printed fuselage sides for easy and accurate assembly.
- Shaped leading edges and strip ailerons.
- Injection molded, strong ABS plastic cowlings.
- Aluminum motor mounts can be spaced to fit .40-.60 engines.
- Heavy-duty landing gear with steerable nose wheel.
- Easily accessible large, separate radio and fuel tank compartments.
- Complete hardware package.
- Differential aileron control for smoother flying.
- Sleek scale-like appearance.

- Full-size plans with step-by-step instructions including "How to Fly" information by Ken Willard.
- All balsa construction reinforced with hardwood at high stress points.

Top Flite's new Headmaster Sport 40... The Sporty Way to Fly R/C.



Top Flite Models, Inc.  
1901 N. Narragansett Ave.  
Chicago, Illinois 60639



**TOP FLITE**

**The legend  
lives on...**

**NEW**



# **Winner 1979 NATS Top Flite's R/C F8F-2 Bearcat**

Navy fighter pilots and the Blue Angels demonstration team lived the legend of the Bearcat, famous for its spectacular acceleration and world record-setting rate of climb. Now you can recreate the legend of this high-spirited carrier fighter, with Top Flite's new F8F-2 Bearcat R/C stand-off featuring rugged structural design and authentic insignia, plus handling that approaches the spunk and agility of the original.

Top Flite's new, exciting F8F-2 Bearcat kit includes: all balsa construction, preformed, die-cut Superform fuselage shells, heavy-duty hardwood landing gear, two-piece, extra strong injection-molded cowl, fully-detailed, clear plastic canopy, precision die-cut parts clearly marked for easy identification, & machined leading edges. Also included are wing tips, etc., heavy-duty 3/16" diameter landing gear wire, full balsa sheeting for wings, horizontal and vertical stabilizers, hardwood motor mounts and wing blocks, silver soldered control horn assemblies, fuel-proof, matte finish authentic mylar Monokote markings, tool and assembly lists, hardware, nylon fittings, illustrated check-off instructions and full-size plans. Can be easily modified to take retracts and flaps.

Also included is a 24 page booklet, "The Grumman F8F Bearcat" by Aero Publishers.

**SEE PAGE 113 FOR  
PRICES AND STOCK NUMBERS.**

**Harold Parenti  
and his  
Championship Model**



Wing span ..... 60"  
Wing area ..... 630 sq. in.  
Length ..... 43"  
Engine size ..... 60  
Weight ..... 7 1/4-10 lbs.  
Kit No. .... RC-23



TOP FLITE



Kit includes  
50-page reference book,  
"F4U Corsair In Action"

GRAND PRIZE AWARD

# Your next R/C mission Top Flite's F4U-1A Corsair

More than 30 years after their final mission, you can recreate the glories of the legendary Black Sheep Squadron with your own radio-control F4U-1A Corsair. All new from Top Flite, this rugged stand-off scale F4U-1A Corsair flies with the grace and agility of a sport R/C, yet features the structural design and insignias of the famous World War II fighter.

Kit highlights of Top Flite's new and exciting F4U-1A Corsair include:

- All balsa construction • Preformed, die-cut "Superform" fuselage shells
- Heavy-duty hardwood landing gear • Two-piece, extra strong injection molded cowl • Fully detailed, clear plastic canopy

- Quality grade die-cut parts • Machined leading edges, wing tips, etc. • Heavy-duty  $\frac{3}{16}$ " diameter landing gear wire • Full balsa sheeting for wings, horizontal and vertical stabilizers • Hardwood motor mounts and wing blocks • Silver soldered control horn assemblies • Fuel-proof, matte finish authentic mylar MonoKote™ markings • Tool and assembly lists • Hardware • Nylon fittings • Illustrated check-off instructions and full-size plans

The F4U-1A Corsair...one more reason Top Flite continues to be the choice of champions.



Top Flite Models, Inc.  
1901 N. Narragansett Avenue  
Chicago, Illinois 60639



Wing span ..... 61"  
Wing area ..... 693 sq. in.  
Length ..... 48"  
Engine size ..... .60  
Weight ..... 7-9½ lbs.  
Kit no. .... RC-21

PHOTO OF  
ACTUAL MODEL BUILT FROM KIT



## TOP FLITE

### S.E. 5a



Never before has an R/C scale model been designed with such measurable accuracy from the wing dihedral and tail area to the most minute incidences. Dave Platt, Scale R/C Champion, and designer of the Dauntless, the only scale model ever given a perfect scale score at any NATS (1968), has outdone himself in designing this S.E. 5a.

Yet, with all this attention to detail and scale, the S.E. 5a combines a ruggedness and flying-field performance seldom found in any model.

Wing span: 53"  
Wing Area: 1060 Sq. In.  
Engines: .45 to .60  
Kit RC-13

- Nylon strut fittings solve the biplane problem of alignment and assembly
- Machined air foil section wing struts
- Stamped metal cowls
- Scale display prop-blank . . . cut to shape
- 2 full sized waxed plan sheets (including both wings)
- 2 gigantic fuel proof authentic matte finish decal sheets
- Plus the finest quality balsa, nylon and metal parts and fittings money can buy

## RADIO CONTROL TRAINERS



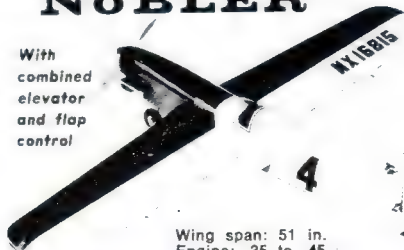
KIT RC - 11

### HEADMASTER

America's best high-wing introduction to R/C! Gentle and predictable to fly; easy to build and rugged enough to take knocks. For .09—.35 engines & 1-3 channels, 48" span. Unique fuselage jig for easy no mistake construction included.

### NOBLER

With combined elevator and flap control



Wing span: 51 in.  
Engine: .35 to .45

KIT RC - 14

### TAURUS

Most precise and complete R/C kit ever produced. Span - 70" For .45-.61 engine.

KIT RC - 7



## R/C SPORT & COMPETITION MODELS

### Contender 40

#### Low Wing RC Trainer

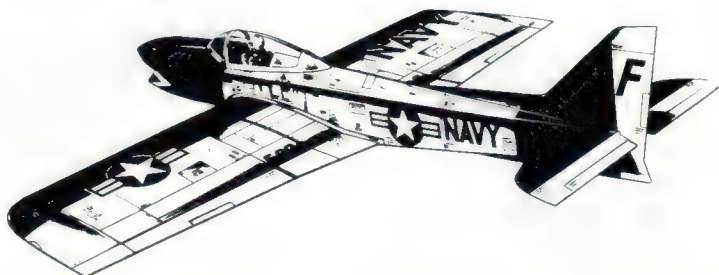


**THE BUILDER'S CHOICE** Bent wing or straight wing. Top Flite's all new Contender 40 is a pilot's dream. Kit includes hardware package, many die-cut and precision machined parts plus easy to read plans for minimum building time and maximum flying enjoyment. Listen to how Al Betkey of Col. Betkey's Flying Circus describes this .40 size, low wing trainer. "Top Flite's Contender 40 is the star performer of our Flying Circus. Virtually stall proof, its short field capability along with its fantastic pattern handling make the Contender the real workhorse of our aerial demonstration. I heartily recommend this great Top Flite kit to anyone who wants to experience the ultimate in performance and stability all in one easy to build package."

### Contender 60

KIT RC - 15

Most unique low-wing that is as easy to fly as any high-wing. Ideal as a transition-ship, between basic trainers and scale/pattern models etc., this design is virtually stall proof! Requires a 4-6 channel radio and a .29-.60 size engine. 54" span.





TOP FLITE

# LOOK what's taking off!



**NEW!** P-47D THUNDERBOLT  
Span: 60" Eng: .50 to .60 Kit RC-19

## Top Flite's NEW P47-D Thunderbolt R/C • Stand-off Scale

It's here at last—World War II's favorite fighter aircraft. Affectionately dubbed the "JUG" by American fighter pilots, the P47-D Thunderbolt proudly joins Top Flite's squadron of stand-off scales.

Just like our P51, P40 and P39, the new P47-D combines the appearance of a true scale model with the fly-ability and building ease of a sport R/C.

And, just like the original "JUG", our stand-off scale version has already built a pretty impressive performance record at the 1974 Nationals with the highest flying scale score, and first place at the Chicago Scalemasters contest.

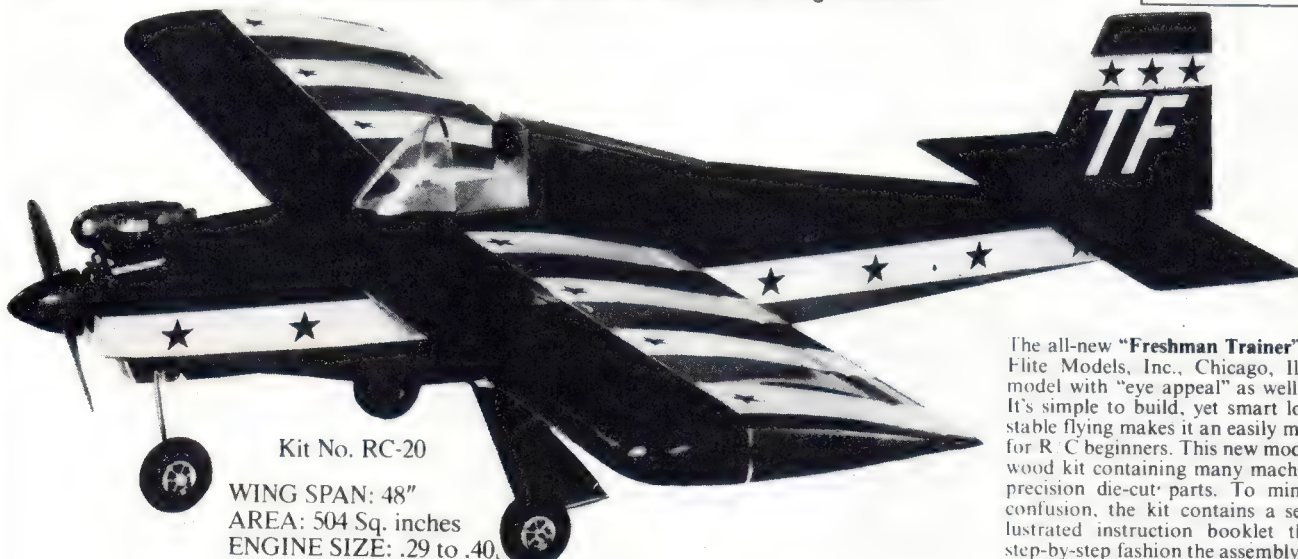
So, drop by your dealer for the new P47-D today, then watch the "JUG" live up to its incredible reputation.

ALL BALSA KIT features: Machine-Shaped Parts, Tough Injection-Molded Cowl, Authentic Matte Finish Mylar Monokote Markings, Plus Many More Time Saving Features.

Span: 60"  
Length: 48"

Area: 720 Sq. In.  
Engine: 50 to 60

**EXCLUSIVE  
Formed Balsa  
Fuselage Shells**



Kit No. RC-20

WING SPAN: 48"  
AREA: 504 Sq. inches  
ENGINE SIZE: .29 to .40  
APPROX. WEIGHT: 3 lbs. ready to fly  
3 OR 4 CHANNELS

The all-new "Freshman Trainer" created by Top Flite Models, Inc., Chicago, Ill., offers a fine model with "eye appeal" as well as "fly appeal." It's simple to build, yet smart looking. Its slow, stable flying makes it an easily manageable plane for R/C beginners. This new model is an all-balsa wood kit containing many machine-finished and precision die-cut parts. To minimize neophyte confusion, the kit contains a separate, fully illustrated instruction booklet that explains in step-by-step fashion the assembly procedure. Flying hints are also detailed. Designed for slow, stable yet responsive flying, the "Freshman Trainer" gives the new R/C pilot time to think and react while guiding it in flight. Two years of design and testing have gone into making this "forgiving" yet good-looking trainer.

The model features shaped leading and trailing edges, ailerons, stab and elevator, solid wood wing tips, formed landing gear and steerable nose gear, one-quarter inch five-ply fire wall, shaped rock-hard maple engine mounts and all required hardware, such as nuts, screws, nylon horns, wing bolts, hinges, steering arm, mounting bearings, etc. The "Freshman Trainer" can be flown from a small field with either three- or four-channel radios, with appropriate ready-to-fly weight of 3 pounds.  
(Kit RC-20)

**MORE  
TOP  
FLITE  
KITS  
ARE  
ON THE  
PREVIOUS  
FOUR  
PAGES**

TCP72C11	TCP FLITE RC-11 HEADMASTER	32.95	24.95	112
TCP73C14	TCP FLITE RC-14 NOBLER	52.95	36.95	112
TCP73C20	TCP FLITE RC-20 FRESHMAN TRNR.	52.95	36.95	113
TCP73C22	TCP FLITE RC-22 CONTENDER 4C	54.95	38.45	112
TCP73C24	T.F. RC-24 HEADMASTER SPORT 40	59.95	41.95	109
TCP74007	TCP FLITE RC-7 TAURUS	72.95	54.95	112
TCP74013	TCP FLITE RC-13 SESA	82.95	57.95	112
TCP74015	TCP FLITE RC-15 CONTENDER 60	62.95	43.95	112
TCP74016	TCP FLITE RC-16 P-51B MUSTANG	82.95	57.95	108
TCP74017	TCP FLITE RC-17 P-40 WARRHAWK	82.95	57.95	108
TCP74018	TCP FLITE RC-18 P-39 AIRACOBRA	82.95	57.95	108
TCP74019	TCP FLITE RC-19 P-47D THUNDERBOLT	99.95	69.95	113
TCP74021	TCP FLITE RC-21 F4-U CORSAIR	99.95	69.95	111
TCP74023	TCP FLITE RC-23 F8F BEARCAT	99.95	69.95	110
TCP77C16	TCP FLITE CONVERSION KIT P-51C	10.95	9.85	108

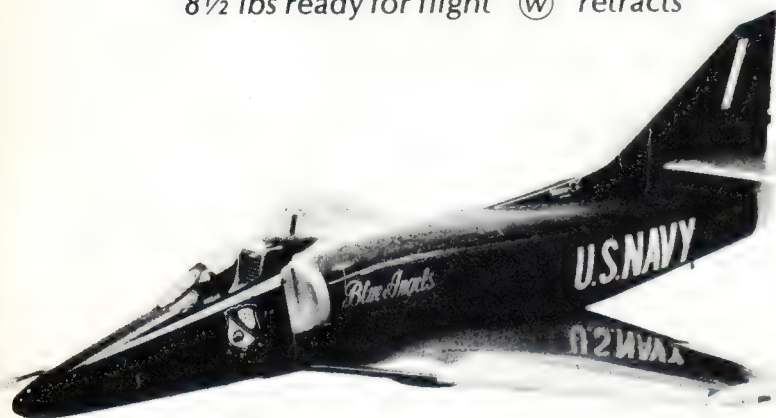


VIOLETT

# SKYHAWK II

THE PROVEN FAN JET MODEL

8½ lbs ready for flight (W) retracts



The SKYHAWK II Might Very Well Be The Ultimate Flying Machine.



Already a proven success, the Skyhawk II combines fantastic high speed performance with extremely stable slow speed flight to stop the show wherever it appears. From its impressive competitive debut at the 1978 Nationals capturing the highest single flight score, the Skyhawk continues to win contests at local fields (even off of grass runways) in the hands of sport fliers the world over. Designed to accept the new K & B 7.5 cc fan engine, the Skyhawk's super efficient ducting system puts at any pilot's command, tremendous power and a reliable idle all on regular sport fuel! So join the jet-set and jet with a winner — the BV Models Skyhawk II, available at selected dealers:



BOB VIOLETT MODELS

Avionics dorsal pack, long range fuel tank, Blue Angel decals and other kit modifications available from Violet direct.



## Kit Modifications

**Avionics Dorsal Pack** (A-4, F, K, L, M, N)  
**Long Range Fuel Tank** (non Functional)

Successful in Stand-Off Scale competition and thriller of thousands at many major modeling activities, The Skyhawk II has proven itself to the most discriminating of jet flight enthusiasts. Built-up balsa flying surfaces, light weight epoxy glass components, an efficient internal ducting system and provisions for retracts and flaps represent a completely engineered model for ducted fan propulsion. Sixty technical photographs with detailed instructions, guide you through each step of assembly, installation and operation. Select your own balsa, follow the construction sequences and you will craft a functional airworthy and scale R/C jet model. The Avionics Dorsal Pack and Long Range Fuel Tank are recent updates of the Skyhawk and provide you the opportunity to reproduce the A-4 of your choice.

## Semi kit includes:

Lightest Epoxy Fiberglass fuselage, tailpipe (molded), wheel pods.  
High efficiency internal ducting system.  
Clear plastic canopy.  
Detailed plans:  
Photo instruction booklet.  
Adhesive back mylar rib and former templates.

Span: 47"  
Length: 57"  
Weight: 8½ lbs.  
Engine: K&B 7.5cc ducted fan  
Ducted Fan: Jet Hangar Hobbies  
(Fan and engine are not included)



VIC73C00 BOB VIOLETT SKYHAWK

144.95 139.95 114



## VK MODELS

### CHEROKEE

#### THE BIG ONE



#### THOUSANDS BUILT & FLOWN — A FAVORITE OF MANY

A kit for the multi-flyer who wants a first class performance with a realistic, semi-scale model. Features full length die-cut sides and effortless take-offs. 65" span. Requires a .40-.60 size engine and a multi-channel radio.

### CHEROKEE BABE



This plane was designed for intermediate and small size proportional radios. Features formed plastic cowl and windshield, steerable nose gear, hardwood spars, symmetrical built-up stab and nylon hardware. 52" span. Requires a .40 size engine.

### SOPWITH CAMEL



This kit features machined wood parts, full-size plan sheets, balsa wing ribs, decals, and formed cowl and fairing. Requires a .60 size engine and a 4 channel radio. 56" span.

### CORBEN



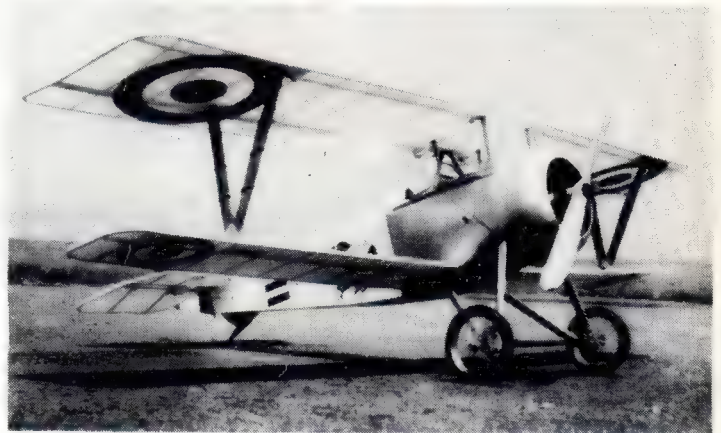
A prominent "Twenties and Thirties" model that will perform the full stunt pattern. Features formed cowl, dural gear and decals. 56" span. Requires a .35-.46 engine and a 4 channel radio.

### FOKKER TRIPLANE



Fun to build, a thrill to fly! This 47" span plane requires a .60 size engine and a 4 channel radio. Kit includes full-size plans, formed cowl and wing fairing, machined die-cut wood parts, hardware and decals.

### NIEUPORT "17"



This meticulously engineered kit features three giant full-size plan sheets with building instructions showing equipment installation for easy balance. Also included are finished cowl, finished hardwood leading and trailing edges, spruce longerons and spars, machined wood parts, die-cut ply, flying wire material and hardware. 54" span. Designed for a .60 engine and a 4 channel radio.

VKK73C03	VK CHEROKEE BABE	49.95	42.45	115
VKK73C04	VK SUPER CORBEN	61.95	52.65	115
VKK74C01	VK CHEROKEE	89.95	76.45	115
VKK74C05	VK FOKKER TRIPLANE	87.95	74.75	115
VKK74C06	VK NIEUPORT 17	87.95	74.75	115
VKK74C07	VK SOPWITH CAMEL	87.95	74.75	115



## MODEL AIRPLANE KITS

### TOWER HOBBIES

#### MAN TRAINER 40

the perfect trainer, designed by  
JERSEY JIM MARTIN



##### SPECIFICATIONS

Wing Span . . . . . 52 inches  
Wing Area . . . . . 546 sq. in.  
Weight . . . . . 4½ to 5½ lbs.  
Power . . . . . 25 to .49  
Radio . . . . . 4 channel

#TOW73040

A trainer is a very special type of airplane. It must be extremely stable, yet very maneuverable; rugged, yet not overweight. And it must be designed for the beginner, yet be capable of more advanced flight as the beginning pilot progresses.

The MAN Trainer 40 has all of these excellent characteristics. And a whole lot more! The design incorporates the many years of modelling and competition experience of its world famous designer, Jersey Jim Martin.

This outstanding kit features all balsa construction, detailed instructions, full size rolled plans, precision cut and sanded parts, full accessories, and fast, easy construction design.

#### SHRIKE COMMANDER .09 TWIN

OUTSTANDING QUALITY!



##### NEW FROM TOWER HOBBIES

Twin engine fun on a single engine budget! The Shrike Commander features beautiful die-cut balsa and easy assembly. If you can fly a trainer then this aircraft is for you. The single engine performance has to be seen to be believed. With two .09 engines and a 4-5 channel radio you're ready to step up to the thrill of a twin. 55" span. Full size plans included.

TCW72C09 TOWER SHRIKE COMMANDER .09 TWIN  
TCW73040 TOWER M.A.N. TRAINER 40

59.95 49.95 116  
58.95 42.95 116

### WING MFG. CO.

*Complete quality Kit!*  
*The "LOVE machine"*

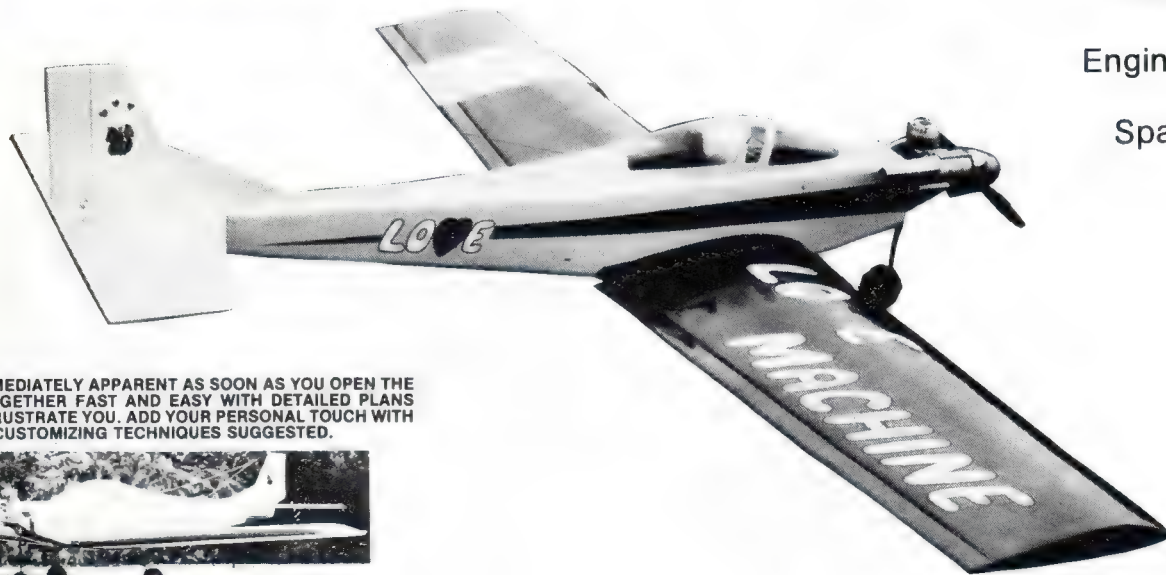
**WING**

Area 550 sq. in.

Weight 4-1/2#

Engine .29 to .50

Span 55 ins.



QUALITY IS IMMEDIATELY APPARENT AS SOON AS YOU OPEN THE BOX. GOES TOGETHER FAST AND EASY WITH DETAILED PLANS THAT WON'T FRUSTRATE YOU. ADD YOUR PERSONAL TOUCH WITH THE VARIOUS CUSTOMIZING TECHNIQUES SUGGESTED.



THE "LOVE MACHINE" IS GOOD LOOKING ON THE GROUND AND IN THE AIR. IT HAS MAGNIFICENT FLIGHT PERFORMANCE. IF YOU ARE AN R/C SPORT FLYER YOU WILL LOVE THIS OUTSTANDING AIRCRAFT. THE KIT COMES WITH PRE-CUT BALSA AND PLYWOOD FUSELAGE PARTS, COMPLETE HARDWARE PACKAGE INCLUDING ENGINE MOUNT, FORMED LANDING GEARS, STEP-BY-STEP PLANS, DECALS, FOAM WING CORES (STRONG & EASY TO BUILD), DETAILED CRYSTAL CLEAR CANOPY WITH COCKPIT INSERT, SPINNER AND MUCH MORE.

WIN73402 WING THE LOVE MACHINE  
WIN75002 WING FOAM WING LOVE MACHINE

69.95 45.95 116  
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# .... another 1<sup>st</sup> for TOWER HOBBIES CUSTOMERS!

## THE ACCESSORY COMPLETION GUIDE

No longer do you have to wait until you receive your kit from Tower Hobbies to determine what hardware, accessories, fittings, and other extras are required to complete it. When you are ordering your kit simply consult this accessory completion guide for that information. Here you will find an organized listing of every item that is specifically called for in the instructions or is shown in the plans but is NOT included in the kit.

Using the accessory completion guide will save time and money by combining everything you need into one economical order. In many cases it's the difference between beginning construction immediately and having to wait until you place another order for some small hardware accessory. In addition to the convenience it offers, it also gives you a good idea of how com-

plete the kit is out of the box and therefore how big of a value it might be. If you're trying to decide between two similar kits you might consult this guide for assistance.

For each kit listed, up to 11 categories of accessories are indicated. A list of these 11 categories is given below along with an explanation and definition of the category, and where appropriate recommendations of specific brands and suggested usages are also included.

*NOTE: Please read the section on the next page regarding the general items you might need for completion of your kit, but are not specifically called for in the plans and therefore are not included in this guide.*

### DEFINITIONS OF HEADINGS

**FUEL TANK:** Many kits specifically designate Sullivan fuel tanks. Where this is the case we show the specific Sullivan tank required—for example: "CSS-12 tank" is the "CSS" variety Sullivan tank of 12 ounce capacity. If a Sullivan tank is not specified on the plans then we simply state the size tank required—for example: "14 oz. tank" indicates a 14 ounce tank is required, however, no specific manufacturer's tank is shown on the plans. If more than one tank is required then a number in parenthesis will follow the word tank indicating how many of these tanks are required—for example: "RST-4 tank (2)" means two RST type 4 ounce tanks are required. Also remember that you will need fuel tubing to connect the tank to the engine. Use large size for all engines .09 size and larger.

**SPINNER:** The size of the spinner is given in inches and the quantity is one unless specified otherwise by a number in parenthesis following the word spinner. The size is determined by the frontal area of the fuselage and has nothing to do with engine size, wing span, etc. Choose any manufacturer and color you like.

**ENGINE MOUNT:** If the kit requires an engine mount(s) then choose one based upon the size engine you are going to use. Consult the charts provided in the engine mount section of this catalog. The words "engine mount" indicate a mount is required.

**RUBBER BANDS:** If rubber bands are required you will find a designation such as "No. 64" or "No. 32" in the list of accessories needed. This refers to the size of rubber band. Rubber bands are usually used for holding the wing on to the fuselage and since they eventually stretch out and get oil soaked they need periodic replacement. A ¼ pound package is a more than adequate supply.

**WHEELS:** Whatever wheels are required are designated by a diameter size in inches and a quantity—for example: "2½" wheel (2)" means that two 2½" wheels are needed. In many cases two of one size and one of another size are specified as the nose wheel and the main wheels are often different sizes.

**FLEX CABLE:** The number of flex cables needed are indicated in parenthesis. Flex cables are usually used to connect the throttle servo with the engine carburetor. The convenient flex feature allows bending and weaving through the firewall and usually around the fuel tank, steerable nose gear, etc. No specific brand is designated, however an excellent choice would be a Dubro No. 165 20" flex cable (DUB20165).

**BOLTS:** A designation such as "4-40 bolts (2)" means that two packs (4 bolts per pack) of 4-40 size bolts are required. These bolts are used for engine mounting, mounting steerable nose gear blocks to firewalls, securing retract gears to mounting plates, etc. No specific brand is designated, however an excellent choice would be any of the Dubro mounting bolt sets.

**PUSHRODS:** "2 rods" means two pushrods are required. Pushrods are usually used to connect the elevator and rudder to their servos. They usually have at least one end that is threaded and has an adjustable clevis. There are several flexible kinds made by Su-Pr-Line and Sullivan that are great for tight or obstacle ridden fuselages. Semi-Flexible is available from Dubro in a 31" Kwik Rod assembly that is really easy to use. And solid pushrods are available from Su-Pr-Line (Pro Rod), Wing, or your own home made variety from ¼" spruce stock with kwik links at each end.

**LINKS:** "3 links" means you need three "links." Links are threaded rods with adjustable clevis ends. We suggest 12" rods as you can cut these down to the exact size you need. Typical use is to connect servos with control horns, bellcranks, retract switches, etc. An excellent choice is Dubro No. 108 Kwik Links (DUB20108).

**COLLARS:** Collars are designated by size and quantity necessary—"5/32" collars (2)" means you need two sets (4 collars per set) of 5/32" collars. Collars are usually used as retaining devices to keep wheels on axle shafts and nose gear wires attached to mounting blocks. Choose from Dubro, Goldberg, or Fox for collars.

**HINGES:** If hinges are required, the number necessary will be indicated as well as the recommended size. "15 large hinges" means you need fifteen large size hinges. The large and small designation is somewhat arbitrary with the rule of thumb being large hinges for aircraft of .40 size engines and larger. Choose from conventional flat hinges with pins, hinge points (Robart), or "live" pinless hinges such as Kraft's. If you can't decide a safe bet is Dubro No. 117 (DUB20117) for large, and Dubro No. 119 (DUB20119) for small.



## GENERAL HARDWARE AND BUILDING ACCESSORIES NECESSARY FOR COMPLETION

The items listed in the accessory completion guide are the specific hardware items needed but not provided in the kit. In addition to these items there are numerous other things you will need to complete the kit. If you are a veteran builder you already know this and probably have all these necessary "goodies" already down in your workshop. But if this is your first building project you will need to buy some of these "staple" items that are "tools of the trade." Some of these items are as follows:

**GLUE:** An aliphatic resin glue such as Titebond or Wilhold is a must for basic balsa wood construction. A cyanoacrylate adhesive like Hot Stuff or Super Jet is great in most balsa applications—once you've used it you'll wonder how you ever got along without it before. Some kind of epoxy is necessary for those extra strong joints like firewalls, landing gear blocks, servo rails, etc., and the best bet is Devcon 5 minute for fast setting, or Hobbypoxy II is great for large areas especially for fuel proofing. If you're doing a foam wing kit you'll need a contact adhesive for the wing skin and you have a choice of brush on like Blue Goo, or a new double sided tape like Fastape or Crazy-Tape. Read the Adhesive Section of this catalog for full details.

**ACCESSORIES:** In addition to the items listed in the guide you'll need seating tape to form a seal between the fuselage saddle and the wing. For powered aircraft some kind of glow plug clip is needed to connect a starting battery to the glow plug. Some kind of fuel bulb or fuel pump is needed to fill your tank. And don't forget fuel tubing (remember to get large size for engines of .09 and larger). Also, some engines do not come with a glow plug, so better get a few in case and for reserve (long plugs for engines of .15 and larger). For easy building "T" pins are a must. Check the Product Index under appropriate headings for manufacturers of these items.

**ENGINE ITEMS:** You'll need glow plugs, propellers, fuel tubing, and possibly a muffler (some flying sites require them). Also some kind of starting battery is needed—the simplest being an Eveready 1.5 volt dry cell and the most elaborate being a ni-cad or motorcycle battery routed through a power panel. A 4-way wrench is a handy tool for glow plugs and prop nuts.

**BUILDING EQUIPMENT:** The basics are sandpaper and modeling knives. Use some ADC assorted self-adhesive sandpaper and try a Tower Precision Blade Handle with a pack of No. 11 blades. Next on the list would be some kind of razor saw set and X-Acto has several to choose from. If it's in your budget think about a Dremel Moto Tool Kit—they are absolutely super! Beyond that any and all of the items in the Building Equipment Section should be considered.

**COVERING MATERIALS:** You'll need some kind of covering for your airplane. The easiest method is heat shrink plastic films and Monokote, Econokote, or Solarfilm will do the job. Allow about 2 rolls for .40 size ships and 3 rolls for .60 size. A household iron will get the job done but it's tricky—your best bet is a teflon shoe sealing iron like Sealector or Top Flite. You might want to add some trim, numbers, or markings as a final touch to dress up your masterpiece!

If you pick out the basics in the above 5 sections you will have a good starting package of essentials that will go a long way in making your building as effortless as possible. From here on it's only a question of how elaborate you want to get in your workshop and as you can see by reading through this catalog—the sky is the limit!

### ACE

ALPHA .15: SS-4 tank, engine mount (1), no. 64, 2 1/2" wheel (2), 2" wheel (1), 2-56 bolts (1).

DICK'S DREAM: No. 32, 1 1/4" wheel (3), 3/32" collars (2).

WHIZARD: No. 32, 2" wheel (2), 1 link, 1/8" collars (1).

PACER: 2 oz. tank, 1 5/16" spinner, engine mount (1), 1 rod, 2 links.

MACH-NONE: CSS-2 tank, 1 5/16" spinner, engine mount (1), 3/4" wheel (1), 1 rod, 2 links.

SUPER PACER: CRST-4 tank, 2" spinner, engine mount (1), 2 1/4" wheel (2), 1/2" wheel (1), flex cable (1), 4-40 bolts (2), 2 rods, 2 links, 5/32" collars (2), 1/16" collars (1), 15 large hinges.

LITTLEST STICK: No. 32, 1/2" wheel (3).

AEROCOMMANDER SHRIKE: RST-2 tank (2), 1 5/16" spinner (2), engine mount (2), 1 1/2" wheel (2), 1 1/4" wheel (1), 2 rods, 2 links, 13 small hinges.

GUPPY .02 GLIDER: Complete.

ALPHA: SS-2 tank, engine mount (1), no. 32, 1 1/4" wheel (2), 1 1/2" wheel (1), 1/8" collars (2), 7 small hinges.

ALL STAR BIPE: CSS-3 tank, engine mount (1), no. 64, 2 1/2" wheel (2), 3/4" wheel (1), 4-40 bolts (1), 2 rods, flex cable (1), 3/32" collars (2), 1/16" collars (1), 7 small hinges.

GLH II: engine mount (1), 1" wheel (2), 1 rod, 2 links.

### ASTRO FLIGHT

FOURNIER RF-4: 2 1/2" spinner, no. 64, 1 1/4" wheel (1), 3/4" wheel (3), 5/32" collars (1), 1/16" collars (2).

ELECTRA-FLI: 1 5/16" spinner, 1 1/2" wheel (2), 3/4" wheel (1), 3/32" collars (1), 1/16" collars (1).

ASW-17: Complete.

ASW-15: Complete.

SUPER MONTEREY: Complete.

SUPER MALIBU: Complete.

CALIFORNIAN: Complete.

### AIRTRONICS

SQUARE SOAR: Complete.

QUESTOR: Complete.

GRAND ESPRIT: Complete.

SUPER QUESTOR: Complete.

AQUILA: Complete.

AQUILA GRANDE: Complete.

OLYMPIC II: Complete.

CADET: Complete.

S-TEE: Complete.

Q-TEE: Complete.

.05 WARLOCK: R-2 tank, 1 1/4" spinner, engine mount (1), 1 1/8" wheel (3), flex cable (1), 3/32" collars (2).

.40 WARLOCK: SS-8 tank, engine mount (1), 2 1/4" wheel (2), flex cable (1), 4-40 bolts (1), 2 rods, 2 links, 5/32" collars (1).

### AIR CAPITAL MODELS

FB-100: Complete.

### ANDREWS

BIG H-RAY: SS-8 tank, 2" spinner, no. 64, 2 1/4" wheels (3), flex cable (2), 2 rods, 4-40 bolts (1), 5/32" collars (2).

ARC-1 S-RAY: SS-4 tank, no. 64, 2" wheel (3), 2 rods, 5/32" collars, 7 small hinges.

ARC-2 H-RAY: No. 64, 2 1/4" wheel (3), 5/32" collars (2), 3-48 bolts (1).

ANDREWS X-RAY: SS-8 tank, 2 1/4" wheel (3), 5/32" collars (1).

ARC-5 TRAINERMASTER: CR-8 tank, 2" spinner, no. 64, 2 1/4" wheel (3), flex cable (1), 4-40 bolts (1), 2 rods, 2 links, 5/32" collars (2), 15 large hinges.

ARC-6 A-RAY: CRST-4 tank, 1 1/2" spinner, no. 64, 2 1/4" wheel (3), flex cable (2), 4-40 bolts (1), 2 rods, 5/32" collars (2), 15 small hinges.

ARC-3 AEROMASTER TOO: CSS-8 tank, no. 64, 3 1/4" wheel (2), 1 1/4" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (1), 1/16" collars (1), 15 large hinges.

ARC-4 SPORTMASTER: CR-10 tank, no. 64, 2 1/4" wheel (3), flex cable (1), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (2), 15 large hinges.

QUICKRAY 500: SS-8 tank, engine mount (1), 2 1/4" wheel (2), flex cable (1), 4-40 bolts (1), 2 rods, 2 links, 5/32" collars (1).

### AERO COMPOSITES

PHOENIX 8: 14 oz. tank, 2 1/4" spinner, engine mount, 2 1/4" wheel (2), 1 1/4" wheel (1), flex cable (2), 6-32 bolts (1), 2 rods, 2 links, 18 large hinges.

### BRIDI

BASIC TRAINER: SS-4 tank, no. 64, 2 1/4" wheel (2), flex cable (1), 2 rods, 2 links, 1/8" collars (1), 15 small hinges.

T-20 TRAINER: SS-4 tank, no. 64, 2 1/4" wheel (3), flex cable (1), 4-40 bolts (2), 2 rods, 2 links, 5/32" collars (2), 15 small hinges.

T-10 TRAINER: SS-4 tank, no. 64, 1 1/4" wheel (2), 1 1/2" wheel (1), flex cable (1), 4-40 bolts (1), 2 rods, 5/32" collars (1), 7 small hinges.

SUN FLI: SS-6 tank, 2" wheel (2), 1 1/4" wheel (1), flex cable (2), 4-40 bolts (1), 2 rods, 2 links, 5/32" collars (2), 15 small hinges.

SUPER KAOS .40: CSS-8 tank, 2 1/4" spinner, 2 1/4" wheel (3), flex cable (1), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (2), 15 large hinges.

TRAINER .40: SS-8 tank, 2" spinner, no. 64, 2 1/2" wheel (3), flex cable (1), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (2), 15 large hinges.

CHIPMUNK: RST-12 tank, 2 1/4" wheel (2), 1 1/4" wheel (1), flex cable (1), 2 rods, 6 links, 5/32" collars (1), 1/16" collars (1), 21 large hinges.



# ACCESSORY COMPLETION GUIDE

**TWEEDY BIRD:** SS-6 tank, 1 1/4" spinner, 2" wheel (2), 1 1/4" wheel (1), flex cable (1), 4-40 bolts (1), 2 rods, 2 links, 5/32" collars (2), 15 large hinges.

**DIRTY BIRDY .40:** CSS-8 tank, 2" spinner, 2" wheel (2), 1 1/4" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (2), 15 large hinges.

**QUICKEST 500:** SS-8 tank, 2 1/4" wheel (2), 3/4" wheel (1), flex cable (1), 4-40 bolts (1), 2 rods, 2 links, 5/32" collars (1), 1/16" collars (1), 15 small hinges.

**15-500:** SS-8 tank, 2 1/4" wheel (2), 1" wheel (1), flex cable (1), 4-40 bolts (1), 2 rods, 2 links, 5/32" collars (1), 3/32" collars (1), 15 large hinges.

**TRAINER .60:** CSS-12 tank, no. 64, 3" wheel (2), 1" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (2), 15 large hinges.

**KAOS .60:** CSS-12 tank, 2 1/4" wheel (2), 2 1/4" wheel (1), flex cable (2), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (2), 15 large hinges.

**SUPER KAOS .60:** CSS-12 tank, 2 1/4" spinner, 2 1/4" wheel (2), 2 1/4" wheel (1), flex cable (2), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (2), 15 large hinges.

**AEROCOMMANDER SHRIKE:** RST-8 tank (2), 2" spinner (2), 3 1/4" wheel (2), 2" wheel (1), flex cable (2), 4 rods, 3 links, 5/32" collars (2), 12 large hinges.

**DIRTY BIRDY .60 GLASS:** CSS-14 tank, 2 1/4" spinner, 2 1/4" wheel (3), flex cable (1), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (2), 17 large hinges.

**DIRTY BIRDY .60 WOOD:** CSS-14 tank, 2 1/4" spinner, 2 1/4" wheel (3), flex cable (1), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (2), 17 large hinges.

**P-51 GLASS:** CSS-12 tank, 3 1/4" CBA P-51 spinner, 3 1/4" wheel (2), flex cable (1), 6-32 bolts (2), 3 rods, 2 links, 5/32" collars (1), 3/32" collars (1), 21 large hinges.

**AT-6 TEXAN:** R-14 tank, 2 1/4" spinner, 4" wheel (2), 1 1/4" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (1), 3/32" collars (1), 15 large hinges.

**DECEPTION:** CSS-16 tank, 2 1/4" spinner, 2 1/4" wheel (2), 2" wheel (1), flex cable (2), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (2), 21 large hinges.

**T-28 D:** R-12 tank, 3" wheel (3), flex cable (1), 6-32 bolts (1), 2 rods, 4 links, 5/32" collars (2), 21 large hinges.

**COSMIC WIND:** SS-12 tank, 3 1/4" CBA P-51 spinner, 4" wheel (2), 1" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 2 links, 18 large hinges.

**SUPER FLI:** SS-12 tank, 2 1/4" spinner, 2 1/4" wheel (2), 1 1/4" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (1), 3/32" collars (1), 15 large hinges.

**LOCKHEED SIRIUS:** R-12 tank, 3 1/4" wheel (2), flex cable (1), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (1), 15 large hinges.

**UFO:** CSS-14 tank, 2 1/4" spinner, 2 1/4" wheel (3), flex cable (1), 2 rods, 2 links, 5/32" collars (2), 15 large hinges.

**BIG BIRDY:** 2 rods, 7 large hinges.

**REARWIN SPEEDSTER:** SS-12 tank, 3" spinner, 4 1/4" wheels (2), 1 1/2" wheel (1), flex cable (1), 6-32 bolts (1), 4 links, 3/16" collars (1), 3/32" collars (1), 20 large hinges.

**SOAR BIRDY:** 6 large hinges.

**SUPER CHIPMUNK:** CSS-12 tank, 1 1/4" spinner, 2 1/4" wheel (2), 1 1/4" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 4 links, 5/32" collars (1), 3/32" collars (1), 21 large hinges.

**TRAINER .05:** 1 1/4" wheel (2), 2 rods, 3/32" collars (1), 6 small hinges.

**QUICKEST 200:** SS-2 tank, no. 64, 1" wheel (2), 2-56 bolts (1), 1 rod, 1 link, 3/32" collars (2), 10 small hinges.

**BROWN B-2:** SS-12 tank, 2 1/4" spinner, 2 1/4" wheel (2), 1" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 1 link, 5/32" collars (1), 3/32" collars (1), 21 large hinges.

**F-7 TIGERCAT:** SS-8 tank (2), 3 1/4" wheel (2), 2 1/4" wheel (1), flex cable (1), 4-40 bolts (2), 2 rods, 1 link, 3/16" collars (1), 5/32" collars (1), 21 large hinges.

**CAP 20L:** CSS-12 tank, 3 1/4" spinner, Quadra mount, 3 1/4" wheel (2), 1 1/4" wheel (1), flex cable (1), 1/4" x 1" bolts (4), 4 links, 5/32" collars (3), 20 large hinges.

**DALOTEL:** SS-16 tank, 2 1/4" spinner, 3 1/4" wheel (2), 1 1/4" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 2 links, 3/16" collars (1), 5/32" collars (1), 20 large hinges.

## CASS

**PULSAR BIPE:** SS-12 tank, 2 1/4" spinner, engine mount, 2 1/4" wheel (2), 3/4" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 4 links, 5/32" collars (1), 1/16" collars (1), 19 large hinges.

**SKYBOLT:** SS-12 tank, 2 1/4" spinner, engine mount, 2 1/4" wheel (2), 3/4" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 4 links, 5/32" collars (1), 1/16" collars (1), 19 large hinges.

## COX

**CENTURION:** Complete.

**SPORTAVIA:** Complete.

**ELECTRIC SPORTAVIA:** Complete.

**CUB:** Complete.

**ARROW:** Complete.

**ARCHER II:** Complete.

## CRAFT-AIR

**WINDRIFTER:** No. 64, 2 rods.

**SD 100:** Complete.

**SAILAIR:** Complete.

**J-BIRD:** 2 rods.

**DRIFTER II:** Complete.

**VIKING I:** 2 rods.

**BUTTERFLY II:** SS-4 tank, 1 1/4" spinner, engine mount, no. 64, flex cable (1), 6-32 bolts (2).

**PIECE OF CAKE:** No. 64, 1 1/4" wheel (2), 2 rods, 3/32" collars (1).

## CUSTOM MODEL PRODUCTS

**GENI:** 2" spinner, no. 64, 2" wheel (3), flex cable (1), 4-40 bolts (1), 1/8" collars (2).

## DODGSON

**MAESTRO MK II:** Flex cable (1), 2 rods, 4 links, 4 large hinges.

**HIJACKER II:** Complete.

**MAESTRO MEGAN:** 2 rods, 7 links, 16 large hinges.

## FLYLINE

**STEARMAN:** 1 1/4" spinner, 2 1/4" wheel (2), 2 rods, 1/16" collars (1), 7 small hinges.

**KINNER SPORTSMAN:** 1 1/4" wheel (2), 1/2" wheel (1), 2 rods, 1/16" collars (1), 9 small hinges.

**GENERAL ARISTOCRAT:** SS-1 tank, 2 1/4" wheel (2), 2 rods, 1/16" collars (1), 7 small hinges.

**CURTISS ROBIN:** 2 1/4" wheel (2), 2 rods, 1/16" collars (1), 7 small hinges.

**GREAT LAKES:** SS-4 tank, 1 1/4" spinner, 3" wheel (2), flex cable (1), 2 rods, 2 links, 3/32" collars (1), 12 small hinges.

**FAIRCHILD 22:** SS-2 tank, 2 1/4" wheel (2), flex cable (1), 2 rods, 1/8" collars (1), 7 small hinges.

**BELLANCA SKYROCKET:** 2" wheel (2), 2 rods, 1/16" collars (1), 7 small hinges.

**TRAVEL-AIR 6000:** 1 3/8" spinner, 2 1/4" wheel (2), 7/8" wheel (1), 2 rods, 1/16" collars (2), 6 small hinges.

**JUNGMEISTER:** R-2 tank, 2 1/4" wheel (2), 7/8" wheel (1), 2 rods, 1/16" collars (1), 6 small hinges.

## GEE BEE

**DREAMER BIPE:** SS-8 tank, 2 1/4" spinner, engine mount, 3" wheel (2), 1" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 2 links, 1/16" collars (1), 15 large hinges.

**MALLARD:** SS-4 tank, engine mount, no. 64, 2 1/4" wheel (2), 1" wheel (1), flex cable (1), 4-40 bolts (1).

**ISLANDER:** SS-4 tank, engine mount, no. 64, 2 1/4" wheel (2), flex cable (1), 4-40 bolts (1), 2 rods, 5/32" collars (1), 6 large hinges.

**SEA HAWK:** RST-6 tank, 2" spinner, engine mount, no. 64, flex cable (1), 6-32 bolts (1).

**TIGERMOTH:** SS-8 tank, 1 1/4" spinner, engine mount, no. 64, 2 1/4" wheel (2), 3/4" wheel (1), flex cable (1), 4-40 bolts (1), 2 rods, 2 links, 1/8" collars (1), 1/16" collars (1), 12 large hinges.

## GOLDBERG

**RANGER 42:** SS-2 tank, no. 32, 1 1/4" wheel (2), 1 1/4" wheel (1), 4-40 bolts (1), 3/32" collars (1).

**FALCON 56 MK II:** SS-8 tank, 2" spinner, no. 64, 2 1/4" wheel (2), 2 1/4" wheel (1), flex cable (2), 6-32 bolts (1), 2 rods, 5/32" collars (2).

**JUNIOR FALCON:** No. 32, 1 1/4" wheel (2), 1 1/4" wheel (1), 2 rods, 3/32" collars (2).

**SKYLARK 56 MK II:** SS-8 tank, 1 1/4" spinner, no. 64, 2 1/4" wheel (2), 2 1/4" wheel (1), flex cable (2), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (2).

**JUNIOR SKYLARK:** No. 32, 1 1/4" wheel (2), 1 1/4" wheel (1), 2 rods, 3/32" collars (2).

**JUNIOR SKYLANE:** No. 32, 1 1/4" wheel (2), 1 1/4" wheel (1), 2 rods, 3/32" collars (2).

**SKYLANE 62:** SS-8 tank, 1 1/4" spinner, no. 64, 2 1/4" wheel (2), 2 1/4" wheel (1), 5/32" collars (2).

**SENIOR FALCON:** CSS-12 tank, 2" spinner, no. 64, 3" wheel (2), 2 1/4" wheel (1), 5/32" collars (2).

**CURTISS HAWK:** RST-6 tank, 2 1/4" wheel (2), 3/4" wheel (1), 5/32" collars (2).

**P-40:** R-2 tank, 2" spinner, 2" wheel (2), 3/4" wheel (1), 4-40 bolts (1), 1/8" collars (1), 7 small hinges.

## HI-FLIGHT

**MIRAGE:** 2 rods, 9 large hinges.

## HOUSE OF Balsa

**PIETENPOL:** SS-8 tank, engine mount, 5" wheel (2), 1" wheel (1), flex cable (1), 4-40 bolts (2), 2 rods, 9 large hinges.

**P-51 MUSTANG 1/4A:** SS-2 tank, 1 1/2" spinner, engine mount, 1 1/2" wheel (2), 3/4" wheel (1), 3-48 bolts (1), 1 rod, 2 links, 3/32" collars (1), 1/16" collars (1), 10 small hinges.

**ME-109 1/4A:** R-2 tank, 1 1/2" spinner, engine mount, 1 1/2" wheel (2), 3/4" wheel (1), 1 rod, 2 links, 3/32" collars (1), 1/16" collars (1).

**P-47 1/4A:** R-2 tank, engine mount, 1 1/2" wheel (2), 3/4" wheel (1), 4-40 bolts (1), 1 rod, 2 links, 3/32" collars (1), 1/16" collars (1), 8 small hinges.

**CHIPMUNK 1/4A:** SS-2 tank, 1 5/16" spinner, engine mount, 1 1/2" wheel (2), 6-32 bolts (2), 1 rod, 2 links, 3/32" collars (1), 1/16" collars (1), 8 small hinges.

**P-39 1/4A:** SS-2 tank, 1 1/2" spinner, engine mount, 1 1/2" wheel (2), 1 1/2" wheel (1), 6-32 bolts (2), 1 rod, 2 links, 3/32" collars (2), 8 small hinges.

**BONANZA 1/4A:** SS-2 tank, 1 5/16" spinner, engine mount, 1 1/2" wheel (2), 1 1/2" wheel (1), 2 rods, 2 links, 3/32" collars (2), 8 small hinges.

**FW-190A 1/4A:** R-2 tank, engine mount, 1 1/2" wheel (2), 3/4" wheel (1), 4-40 bolts (2), 1 rod, 2 links, 3/32" collars (1), 1/16" collars (1), 8 small hinges.

**PETE K-15 1/4A:** SS-2 tank, engine mount, 2 1/2" wire wheel (2), 2-56 bolts (1), 2 rods, 3/32" collars (1), 6 small hinges.

**P-51 D WOOD:** RST-8 tank, 2 1/4" spinner, engine mount, 2 1/4" wheel (2), 1" wheel (1), flex cable (1), 4-40 bolts (1), 3 rods, 2 links, 5/32" collars (2), 3/32" collars (1).

**P-51 D GLASS:** SS-8 tank, 2 1/4" spinner, engine mount, 2 1/4" wheel (2), 1" wheel (1), flex cable (1), 4-40 bolts (1), 2 rods, 2 links, 5/32" collars (2), 3/32" collars (1).

## JEMCO

**FAIRCHILD PT-19:** CSS-10 tank, engine mount, 2 1/4" wheel (2), 1" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (1), 1/16" collars (1), 15 large hinges.

**P-51 MUSTANG:** SS-8 tank, 2 1/4" spinner, engine mount, 2 1/4" wheel (2), 1" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (1), 1/16" collars (1), 15 large hinges.

**ME-109:** RST-8 tank, 3" spinner, engine mount, 2 1/2" wheel (2), 1 1/4" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (1), 1/16" collars (1), 15 large hinges.

**FW-190 D-9:** R-8 tank, 3" spinner, engine mount, 2 1/2" wheel (2), 1 1/4" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (1), 1/16" collars (1), 15 large hinges.

**F4U-1A CORSAIR:** R-8 tank, 3" wheel (2), 1 1/4" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 2 links, 3/32" collars (1), 1/16" collars (1), 15 large hinges.

**AT-6 TEXAN:** R-8 tank, 3" wheel (2), 1 1/4" wheel (1), flex cable (1), 4-40 bolts (1), 2 rods, 2 links, 5/32" collars (1), 1/8" collars (1), 15 large hinges.

**ZERO:** R-8 tank, 2" spinner, 2 1/2" wheel (2), 3/4" wheel (1), flex cable (3), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (1), 1/16" collars (1), 15 large hinges.

**HELLCAT:** R-8 tank, 3 1/4" wheel (2), 1" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (1), 3/32" collars (1), 15 large hinges.

**FUN-SCALE P-39:** RST-6 tank, 2 1/4" spinner, engine mount, no. 64, 2" wheel (2), 2 1/4" wheel (1), flex cable (1), 2 rods, 4 links, 5/32" collars (2).

**FUN-SCALE P-51:** RST-6 tank, 2 1/4" spinner, engine mount, no. 64, 2 1/4" wheel (2), 3/4" wheel (1), flex cable (1), 4-40 bolts (1), 2 rods, 4 links, 5/32" collars (2).

**AMERICAN EAGLE 50:** RST-6 tank, 2" spinner (1), engine mount (1), 2 1/4" wheel (3), 5/32" collars (2), 1/16" collars (1), flex cable (1), 2 rods, 2 links.

## JENSEN

**DAS UGLY STICK:** SS-12 tank, 2" spinner, engine mount, no. 64, 3" wheel (2), 2 1/4" wheel (1), flex cable (1), 6-32 bolts (2), 2 rods, 2 links, 5/32" collars (2), 15 large hinges.

## LANIER

**CESSNA:** SS-6 tank, 1 1/4" spinner, no. 64, 2" wheel (3), flex cable (1), 4-40 bolts (1), 2 rods, 1/8" collars (2).

**TRANSIT:** SS-10 tank, no. 64, 2 1/4" wheel (3), flex cable (1), 4-40 bolts (1), 2 rods, 2 links, 5/32" collars (2).

**PINTO:** SS-8 tank, 2" spinner, no. 64, 2 1/4" wheel (3), flex cable (1), 4-40 bolts (1), 2 rods, 5/32" collars (2).

**COMET II:** SS-12 tank, 2" spinner, no. 64, 2 1/4" wheel (3), flex cable (1), 6-32 bolts (1), 2 rods, 2 links, 1/8" collars (2).



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**CAPRICE:** SS-12 tank, 2 1/4" spinner, no. 64, 2" wheel (3), flex cable (2), 6-32 bolts, 2 rods, 2 links, 5/32" collars (3).

**JESTER II:** SS-12 tank, 2 1/4" spinner, no. 64, 2" wheel (3), flex cable (2), 6-32 bolts, 2 rods, 2 links, 5/32" collars (2).

## MARK'S MODELS

**WINDFREE:** Complete.

**WINDWARD:** Complete.

**WANDERER 72 in.:** Complete.

**WANDERER 99 in.:** Complete.

**BUSHWACKER:** Complete.

**BIRD OF TIME:** 2 rods, 4 large hinges.

**SUNNY BIPE:** SS-4 tank, 2 1/4" wheel (2), 1" wheel (1), flex cable (1), 2 rods, 7 small hinges.

## MASTER KIT

**HIPERBIPE:** CSS-10 tank, 2 1/4" spinner, engine mount, 2 1/2" wheel (2), flex cable (1), 4-40 bolts (1), 2 rods, 2 links.

**PEPPERMINT PATTIE:** SS-4 tank, 1 1/2" spinner, engine mount, flex cable (1), 4-40 bolts (1), 2 rods, 2 links.

**STINGER II:** SS-8 tank, 3" spinner, 3" wheel (2), 1" wheel (1), flex cable (1), 4-40 bolts (1), 2 rods, 2 links, 1/8" collars (2), 1/16" collars (1).

## M.E.N.

**TRAINER .15-.25:** SS-4 tank, engine mount, no. 64, 2 1/2" wheel (2), 1" wheel (1), flex cable (1), 4-40 bolts (1), 2 rods, 5/32" collars (1), 1/16" collars (1), 7 small hinges.

**BUZZARD BOMBSHELL:** SS-8 tank, engine mount, no. 64, 3 1/2" wheel (2), flex cable (1), 4-40 bolts (1), 2 rods, 1/8" collars (1), 9 large hinges.

**TRAINER .40:** SS-8 tank, no. 64, 2 1/2" wheel (3), flex cable (2), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (2).

**J-3 CUB:** SS-6 tank, engine mount, 3" wheel (3), 1" wheel (1), flex cable (1), 4-40 bolts (1), 1/8" collars (1), 1/16" collars (1).

## MICHIGAN HOBBY HANGAR

**QUICKIE BIPE:** CSS-6 tank, 1 1/2" spinner, engine mount, no. 64, 2" wheel (2), 3/4" wheel (1), flex cable (1), 2 rods, 1/16" collars (1), 7 small hinges.

**QUICKIE:** SS-4 tank, 1 1/4" spinner, no. 32, 1 1/2" wheel (2), 3/4" wheel (1), 1/16" collars (1).

**SMALL WONDER:** SS-4 tank, engine mount, 2" wheel (2), 3/4" wheel (1), flex cable (1), 4-40 bolts (1).

**MISS VINTAGE:** SS-8 tank, engine mount, 3 1/2" wheel (2), flex cable (1), 4-40 bolts (2), 2 rods, 5/32" collars (1), 15 large hinges.

**NEGOTIATOR:** SS-8 tank, engine mount, 2 1/2" wheel (3), flex cable (2), 6-32 bolts (1), 15 large hinges.

## MILE HIGH MODELS

**JOY STICK:** SS-2 tank, engine mount, no. 64, 3/4" wheel (3), 3/32" collars (1).

**SUPER JOY STICK:** SS-4 tank, engine mount, no. 64, 1 1/4" wheel (3), flex cable (1), 1/8" collars (2).

**HORNET 1/4A:** R-2 tank, 2 rods, 2 links.

**P-68 VICTOR:** 1 oz. tank (2), 1 1/4" spinner (2), 1 1/4" wheel (2), 1" wheel (1), 2 rods.

## MIDWEST

**LIL "T":** No. 64, 2 rods, 3 small hinges.

**SILENT SQUIRE:** Complete.

**TRI SQUIRE:** SS-4 tank, 1 1/4" spinner, no. 64, 2 1/2" wheel (2), 2" wheel (1), flex cable (1), 4-40 bolts (1), 2 rods, 1/8" collars (1), 7 small hinges.

**LIL TRI SQUIRE:** No. 32, 2 1/4" wheel (2), 1 1/4" wheel (1), 2 rods.

**LITTLE STICK:** SS-4 tank, 1 1/4" spinner, no. 64, 2 1/2" wheel (2), 2" wheel (1), flex cable (2), 4-40 bolts (1), 2 rods, 2 links, 5/32" collars (1).

**CARDINAL:** SS-4 tank, 1 1/4" spinner, no. 64, 2" wheel (2), 1 1/4" wheel (1), flex cable (1), 4-40 bolts (1), 2 rods, 3/32" collars (1), 1/8" collars (1).

**SUPER CHIPMUNK:** SS-4 tank, 1 1/4" spinner, no. 64, 2" wheel (2), 3/4" wheel (1), flex cable (1), 4-40 bolts (1), 2 rods, 1/8" collars (1), 1/16" collars (1).

**SWEET STICK:** CSS-10 tank, 2" spinner, no. 64, 2 1/2" wheel (2), 2 1/2" wheel (1), flex cable (2), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (2).

**STRIKEMASTER:** SS-8 tank, 2 1/2" spinner, 2 1/2" wheel (3), 4-40 bolts (1), 5/32" collars (2).

**ATTACKER:** SS-8 tank, 2 1/4" spinner, 2 1/2" wheel (3), 5/32" collars (2).

**MACH 1:** CSS-12 tank, 2 1/4" spinner, 2 1/2" wheel (2), 1 1/4" wheel (1), flex cable (2), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (2).

**CARDINAL SQUIRE:** SS-12 tank, 2 1/2" spinner, 3" wheel (2), 2 1/2" wheel (1), 5/32" collars (2).

**PITTS SPECIAL:** CSS-12 tank, 2 1/4" spinner, 3" wheel (2), 1 1/4" wheel (1).

**HEINKEL 162:** 3 1/4" wheel (2), 2 1/2" wheel (1), 2 rods, 5/32" collars (2).

**TWIN STIK:** RST-4 tank (2), 2" spinner (2), 2 1/2" wheel (2), 2" wheel (1), 3 rods, 5/32" collars (2).

**SUPER ESQUIRE:** SS-12 tank, no. 64, 4" wheel (2), 2" wheel (1), flex cable (1), 5/32" collars (1), 3/32" collars (1).

**MIDWEST A4D:** Hardware complete.

**PATTERN MASTER:** SS-10 tank, 2 1/2" wheels (3), 5/32" collars (1).

**TAYLORCRAFT:** 8 oz. tank, 2 1/2" wheel (2), 7/8" wheel (1), flex cable (1).

**JETSTER:** 2" wheel (3), flex cable (1), 5/32" collars (1), 1/8" collars (1).

## MODEL DYNAMICS

**GRYPHON:** Complete.

## BOB MARTIN MODELS

**COYOTE:** Complete.

**KATIE II:** Complete.

## MRC

**HAWK II:** Complete.

**CESSNA:** Complete.

**CHEROKEE:** Complete.

## BUD NOSEN

**AERONCA CHAMP:** SS-12 tank, 5" wheel (2), 1 1/4" wheel (1), flex cable (1), 6-32 bolts (2), 2 rods, 2 links, 5/32" collars (1), 1/16" collars (1), 18 large hinges.

**CESSNA 310 TWIN:** 12 oz. tank (2), 3" spinner (2), engine mount (2), 3 1/2" wheel (2), 3" wheel (1), flex cable (2), 6-32 bolts (2), 2 rods, 4 links, 3/16" collars (2), 21 large hinges.

**CITABRIA:** SS-12 tank, 2 1/4" spinner, 4" wheel (2), 1 1/4" wheel (1), flex cable (1), 6-32 bolts (2), 2 rods, 2 links, 5/32" collars (1), 1/16" collars (1), 18 large hinges.

**J-3 CUB:** SS-12 tank, 4 1/2" wheel (2), 1 1/2" wheel (1), flex cable (1), 6-32 bolts (2), 2 rods, 2 links, 5/32" collars (1), 1/16" collars (1), 18 large hinges.

**MR. MULLIGAN:** SS-12 tank, engine mount, 4 1/2" wheel (2), 1 1/2" wheel (1), flex cable (1), 6-32 bolts (2), 2 rods, 2 links, 5/32" collars (1), 1/16" collars (1), 20 large hinges.

**GERE SPORT BIPE:** SS-12 tank, engine mount, 6" wheel (2), flex cable (1), 6-32 bolts (2), 2 rods, 2 links, 5/32" collars (1), 22 large hinges.

**JENNY:** 12 oz. tank, engine mount, 5" wheel (2), flex cable (1), 6-32 bolts (2), 2 rods, 2 links, 5/32" collars (1).

**TRAINER:** SS-12 tank, 2" spinner, engine mount, 4" wheel (3), flex cable (1), 6-32 bolts (2), 2 rods, 2 links, 5/32" collars (2), 19 large hinges.

**P-51 MUSTANG:** 16 oz. tank, 6" spinner, engine mount, 5 1/2" wheel (2), 2 1/2" wheel (1), flex cable (1), 2 rods, 4 links, 3/16" collars (1), 1/8" collars (1), 30 large hinges.

## ORLINE

**FOKKER D-VII:** SS-16 tank, flex cable (1), 6-32 bolts (1), 4 rods, 4 links.

**DEWEYVILLE SPECIAL:** SS-16 tank, 2 1/2" spinner, engine mount, 3 1/4" wheel (2), 1" wheel (1), flex cable (1), 6-32 bolts (1), 20 large hinges.

**SOPWITH PUP:** SS-16 tank, flex cable (1), 4 rods, 4 links.

**VICTORY STICK:** SS-10 tank, engine mount (1), 3 1/4" wheels (2), 2 1/2" wheel (1), 6-32 bolts (2), 4-40 bolts (1), 2 rods, 2 links.

**LIBERTY STICK:** SS-10 tank, engine mount (1), 3 1/4" wheels (2), 2 1/2" wheel (1), 6-32 bolts (2), 4-40 bolts (1), 2 rods, 2 links.

## PICA

**JUNGMEISTER:** R-10 tank, 3 1/2" wheel (2), 3/4" wheel (1), flex cable (1), 6 links, 5/32" collars (1), 1/8" collars (1), 19 large hinges.

**SPITFIRE:** 12 oz. tank, 3 1/2" spinner, 3 1/4" wheel (2), 1 1/4" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (1), 1/16" collars (1).

**T-28 B:** R-12 tank, 3" wheel (2), 2" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 4 links, 5/32" collars (2).

**FW-190:** R-12 tank, 3 1/2" spinner, 3 1/2" wheel (2), 1 1/4" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (1), 1/16" collars (1).

**WACO:** R-12 tank, 3 1/4" wheel (2), 1 1/4" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 4 links, 5/32" collars (1), 1/16" collars (1).

**CESSNA 182:** 12 oz. tank, 2" spinner, 2 1/4" wheel (2), 2" wheel (1), flex cable (2), 6-32 bolts (1), 2 rods, 4 links, 5/32" collars (1), 1/16" collars (1).

**DUELIST 2/40:** SS-8 tank (2), 2 1/2" spinner (2), engine mount (2), 2 1/2" wheel (3), flex cable (2), 6-32 bolts (4), 2 rods, 2 links, 5/32" collars (2), 15 large hinges.

## PRATHER

**1/2 MIDGET LIL TONY:** 4 oz. tank, 1 1/2" spinner, engine mount, flex cable (1), 4-40 bolts (1).

**PYLON LIL TONY:** 8 oz. tank, 2" spinner, engine mount, flex cable (1), 6-32 bolts (1), 2 rods, 2 links.

**PANTHER:** 12 oz. tank, 2 1/4" spinner, engine mount, 2 1/4" wheel (2), 2 1/2" wheel (1), flex cable (1), 6-32 bolts (2), 5/32" collars (1).

## PROCTOR

**MINI-ANTIC:** 8 oz. tank, 3" wheel (2), flex cable (1), 6-32 bolts (1), 5/32" collars (1).

**ANTIC MONO:** 12 oz. tank, 5" wheel (2), flex cable (1), 6-32 bolts (1), 5/32" collars (1).

**ANTIC BIPE:** 12 oz. tank, 5" wheel (2), flex cable (1), 6-32 bolts (1), 5/32" collars (1).

**NIEUPORT II:** 12 oz. tank, engine mount, 4 1/2" wheel (2), 6-32 bolts (1), 5/32" collars (1).

## ROYAL

**CORSAIR F4U-1D:** R-12 tank, 3 1/2" wheel (2), 1 1/4" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 4 links, 5/32" collars (1), 1/16" collars (1), 21 large hinges.

**HEIN JUNIOR:** 10 oz. tank, 2" spinner, 2 1/4" wheel (2), 1" wheel (1), flex cable (1), 4-40 bolts (1), 2 rods, 4 links, 1/8" collars (1), 1/16" collars (1), 15 small hinges.

**CESSNA 172 .20:** SS-6 tank, 1 1/4" spinner, 2" wheel (2), 1 1/4" wheel (1), flex cable (1), 4-40 bolts (1), 2 rods, 2 links, 15 large hinges.

**ZERO JUNIOR:** R-8 tank, 1 1/4" spinner, 2" wheel (2), 1" wheel (1), flex cable (1), 4-40 bolts (1), 2 rods, 4 links, 1/8" collars (1), 1/16" collars (1), 15 small hinges.

**SPITFIRE JUNIOR:** 6 oz. tank, 2 1/2" spinner, 2 1/2" wheel (2), 1" wheel (1), flex cable (1), 4-40 bolts (1), 2 rods, 2 links, 15 large hinges.

**COLT JUNIOR:** 6 oz. tank, 1 1/4" spinner, 3" wheel (3), flex cable (2), 4-40 bolts (1), 4 rods, 4 links, 1/8" collars (1).

**BLERIOT XI:** SS-8 tank, engine mount, 5" wheel (1), 3 1/4" wheel (1), 4-40 bolts (2), flex cable (1), 2 rods.

**CESSNA 206:** SS-12 tank, 2 1/4" spinner, 2 1/4" wheel (2), 2 1/4" wheel (1), flex cable (2), 6-32 bolts (1), 2 rods, 4 links, 15 large hinges.

**FW-190:** R-12 tank, 2 1/4" spinner, 3 1/2" wheel (2), 1 1/4" wheel (1), flex cable (1), 6-32 bolts (1), 3/8" collars (1), 1/16" collars (1).

**PHANTOM F4J:** SS-10 tank, 2 1/4" spinner, 2 1/2" wheel (3), flex cable (2), 4-40 bolts (1), 3 rods, 2 links, 5/32" collars (1), 15 large hinges.

**CESSNA 182:** 12 oz. tank, 2 1/4" wheel (2), 2 1/2" wheel (1), flex cable (1), 2 rods, 2 links, 5/32" collars (2), 15 large hinges.

**B-25 TWIN:** 12 oz. tank (2), 3" wheel (2), 2" wheel (1), flex cable (3), 4 rods, 2 links, 5/32" collars (1), 18 large hinges.

**P-38 TWIN:** 8 oz. tank (2), 2 1/4" spinner (2), 3 1/4" wheel (2), 3 1/2" wheel (1), flex cable (2), 4-40 bolts (2), 3 rods, 2 links, 5/32" collars (1), 18 large hinges.

**SPIRIT OF ST. LOUIS:** SS-10 tank, 3" spinner, 4 1/2" wheel (2), flex cable (1), 6-32 bolts (1), 2 rods, 2 links, 15 large hinges.

**PITTS SPECIAL:** 12 oz. tank, 2" spinner, 2 1/4" wheel (2), 1" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (1), 1/16" collars (1), 15 large hinges.

**OSCAR:** 12 oz. tank, 2 1/2" spinner, 3 1/4" wheel (2), 1" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (1), 15 large hinges.

**CESSNA 310 Q:** 12 oz. tank (2), 2" spinner (2), 2 1/4" wheel (2), 2 1/4" wheel (1), flex cable (3), 6-32 bolts (2), 2 rods, 2 links, 5/32" collars (2), 15 large hinges.

**ZERO:** R-10 tank, 2 1/4" spinner, 3 1/4" wheel (2), flex cable (1), 6-32 bolts (1), 2 rods, 4 links.

**SPITFIRE:** 12 oz. tank, 2 1/4" spinner, 3" wheel (2), 1 1/4" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 4 links, 5/32" collars (1), 1/16" collars (1), 15 large hinges.

**COLT SENIOR:** 12 oz. tank, 1 1/4" spinner, 3" wheel (3), flex cable (2), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (2), 15 large hinges.

**CESSNA SKYMASTER:** 10 oz. tank (2), 2 1/4" spinner (2), 2 1/4" wheel (2), 2 1/2" wheel (1), flex cable (2), 4-40 bolts (2), 2 rods, 4 links, 5/32" collars (2), 15 large hinges.

**BEARCAT:** R-12 tank, 3 1/4" wheel (2), 1 1/4" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (1), 1/16" collars (1).

**S-2 PITTS:** 12 oz. tank, 2 1/2" spinner, 2 1/4" wheel (2), 1 1/4" wheel (1), flex cable (2), 2 rods, 4 links, 5/32" collars (1), 1/16" collars (1), 15 large hinges.

**STAGGERWING BEECH:** R-12 tank, 3 1/4" wheel (2), 1 1/4" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (1), 1/8" collars (1), 15 large hinges.

**DOUGLAS C-47:** R-8 tank (2), 3 1/4" wheel (2), 1 1/4" wheel (1), flex cable (2), 6-32 bolts (2), 2 rods, 5 links, 15 large hinges.

**P-51D MUSTANG:** 14 oz. tank, 3 1/2" spinner, 4" wheel (2), 1 1/4" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 5 links, 5/32" collars (1), 3/32" collars (1), 21 large hinges.



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**P-68 VICTOR TWIN:** 4 oz. tank (2), 2 1/2" wheel (2), 2 1/2" wheel (1), flex cable (1), 4-40 bolts (2), 2 rods, 2 links, 15 small hinges.

**JU 87D-5 STUKA:** 12 oz. tank, 3" spinner, 3 1/2" wheel (2), 1 1/2" wheel (1), flex cable (1), 2 rods, 2 links.

**CESSNA 182 MIDI:** 6-oz. tank, 1 1/2" spinner, 2" wheel (1), 1 1/2" wheel (1), flex cable (2), 4-40 bolts (1), 2 rods, 2 links, 13 small hinges.

**CORSAIR 35-51:** R-8 tank, 3" wheel (2), 1 1/2" wheel (1), flex cable (1), 4-40 bolts (2), 2 rods, 1/8" collars (1), 15 small hinges.

**P-51 19-40:** 8 oz. tank, 2 1/2" spinner, 2 1/2" wheel (2), 1 1/2" wheel (1), flex cable (1), 4-40 bolts (1), 2 rods, 2 links, 5/32" collars (1), 1/8" collars (1), 15 small hinges.

**P-51 40-60:** 12 oz. tank, 3" spinner, 3 1/2" wheel (2), 1 1/2" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 4 links, 5/32" collars (1), 3/32" collars (1), 19 large hinges.

**ZERO MIDI:** 6 oz. tank, 1 1/2" spinner, 2 1/2" wheel (2), flex cable (1), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (1), 1/8" collars (1), 15 small hinges.

## SIG

**PIPER J-3:** SS-6 tank, 3" wheel (2), 1/8" collars (1).

**CLIPPED WING CUB:** SS-6 tank, 3" wheel (2), 1/8" collars (1).

**KADET:** SS-6 tank, 2" spinner, no. 64, 2 1/2" wheel (2), 1" wheel (1), flex cable (2), 4-40 bolts (1), 2 rods, 5/32" collars (2).

**CITABRIA:** 12 oz. tank, 2 1/2" wheel (2), 1" wheel (1), 1/16" collars (1).

**KOMMANDER:** 10 oz. tank, 2 1/2" spinner, 3" wheel (2), 2 1/2" wheel (1), flex cable (2), 4-40 bolts (2), 2 rods, 2 links, 5/32" collars (2).

**KOUGAR MK II:** 12 oz. tank, 2 1/2" spinner, 2 1/2" wheel (3), flex cable (1), 4-40 bolts (2), 2 rods, 2 links, 5/32" collars (2).

**SMITH MINIPLANE:** SS-10 tank, 2 1/2" wheel (2), 1 1/2" wheel (1), 5/32" collars (1), 1/16" collars (1).

**SUPER CHIPMUNK:** SS-10 tank, 2" spinner, 2 1/2" wheel (2), 1 1/2" wheel (1), flex cable (1), 5/32" collars (1).

**CESSNA 150:** SS-8 tank, 1 1/2" spinner, 2 1/2" wheel (2), 2 1/2" wheel (1), flex cable (3), 6-32 bolts (1), 5/32" collars (2).

**KOMET:** 12 oz. tank, 2 1/2" spinner, 2 1/2" wheel (3), flex cable (1), 2 rods, 2 links, 5/32" collars (2).

**SKYBOLT:** 12 oz. tank, 2" spinner, 2 1/2" wheel (2), 1 1/4" wheel (1).

**COLT:** SS-4 tank, 2" spinner, no. 64, 2 1/2" wheel (3), 1/8" collars (1).

**KAVALIER:** 10 oz. tank, 2 1/2" spinner, no. 64, 2 1/2" wheel (2), 2 1/2" wheel (1), flex cable (1), 4-40 bolts (1), 2 rods, 2 links, 5/32" collars (2).

**P-51 MUSTANG:** 10 oz. tank, 3 1/2" spinner, 3 1/2" wheel (2), 1 1/2" wheel (1), 6-32 bolts (1), 5/32" collars (2), 3/32" collars (1).

**KIWI:** 8 oz. tank, 2" spinner, 2 1/2" wheel (2), 2" wheel (1), 2 rods, 5/32" collars (2).

**KLIPPER:** 4 oz. tank, 1 1/2" spinner, no. 64, 2 1/2" wheel (3), 4-40 bolts (1), 2 rods, 1/8" collars (2).

**RYAN STA:** 10 oz. tank, 3 1/2" wheel (2), 1 1/2" wheel (1), flex cable (1), 6-32 bolts (1), 2 links, 3/16" collars (1).

**SUPER SPORT:** 4 oz. tank, 1 1/2" spinner, no. 64, 2" wheel (2), 1 1/2" wheel (1), flex cable (1), 4-40 bolts (1).

**SCAMP:** SS-4 tank, 1 1/2" spinner, no. 64, 2" wheel (2), flex cable (1), 4-40 bolts (1), 1 rod.

**LIBERTY SPORT:** SS-10 tank, 1 1/2" spinner, 2 1/2" wheel (2), 1" wheel (1), flex cable (1), 6-32 bolts (1), 1 rod.

**KADET JUNIOR:** SS-6 tank, 2" spinner, no. 64, 2 1/2" wheel (2), 2" wheel (1), flex cable (2), 4-40 bolts (1), 1/8" collars (2).

**CESSNA 172:** SS-10 tank, 1 1/2" spinner, 2 1/2" wheel (2), 2" wheel (1), flex cable (1), 6-32 bolts (1), 4 links, 5/32" collars (2).

**BEECH BONANZA:** SS-10 tank, 2" spinner, 2 1/2" wheel (2), 2" wheel (1), flex cable (2), 6-32 bolts (1), 4 links, 5/32" collars (2).

## SKYGLAS

**ZERO:** R-8 tank, 1 1/2" spinner, engine mount, 2 1/2" wheel (2), 3/4" wheel (1), flex cable (1), 4-40 bolts (1), 2 rods, 2 links, 5/32" collars (1), 1/16" collars (1), 15 small hinges.

**ME-109:** 8 oz. tank, engine mount, 2" wheel (2), 3/4" wheel (1), flex cable (1), 4-40 bolts (1), 2 rods, 2 links, 5/32" collars (1), 1/16" collars (1), 15 small hinges.

**PHOENIX V:** 8 oz. tank, 2" spinner, engine mount, 2" wheel (2), 1 1/2" wheel (1), flex cable (2), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (2), 15 small hinges.

**VERTIGO II:** 12 oz. tank, 2 1/2" spinner, engine mount, 2 1/2" wheel (2), 2" wheel (1), flex cable (1), 6-32 bolts (2), 2 rods, 2 links, 5/32" collars (2), 15 large hinges.

**P-47:** 12 oz. tank, engine mount, 3 1/2" wheel (2), 1" wheel (1), flex cable (1), 6-32 bolts (2), 2 rods, 2 links, 5/32" collars (1), 3/32" collars (1), 21 large hinges.

**PHOENIX 6:** 12 oz. tank, 2" spinner, engine mount, 2 1/2" wheel (2), 2" wheel (1), flex cable (1), 6-32 bolts (2), 2 rods, 2 links, 5/32" collars (2), 15 large hinges.

**BEARCAT:** 12 oz. tank, 2" spinner, engine mount, 2" wheel (2), 3/4" wheel (1), flex cable (1), 6-32 bolts (2), 2 rods, 2 links, 5/32" collars (1), 15 large hinges.

**CUREARE:** 13 oz. tank, 2" spinner, engine mount, 2 1/2" wheel (2), 2" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (2), 15 large hinges.

## BOB SMITH

**PATRICIA:** 16 oz. tank, 2 1/2" spinner, engine mount, 2 1/2" wheel (2), 2 1/2" wheel (1), flex cable (1), 6-32 bolts (2), 2 rods, 2 links, 15 large hinges.

**SEA BREEZE:** Complete.

## SOUTHWESTERN

**HONKER:** Engine mount, no. 32, 6 small hinges.

**HONKER BIPE:** SS-4 tank, engine mount, no. 64, 2 1/2" wheel (2), 4-40 bolts (2), 1/8" collars (1), 6 small hinges.

**LIL GYPSY:** SS-1 tank, engine mount, no. 32, 2" wheel (2), 2 rods, 3/32" collars (1).

**GYPSY LADY:** 4 oz. tank, engine mount, no. 64, 3 1/2" wheel (2), flex cable (1), 4-40 bolts (1), 2 rods.

## SPICKLER

**QUICKIE 200:** SS-1 tank, engine mount, 1 1/2" wheel (2), 2 rods, 3/32" collars (1), 8 small hinges.

**QUICKIE 500:** 8 oz. tank, engine mount, 2 1/2" wheel (2), flex cable (1), 6-32 bolts (2), 2 rods, 2 links.

## STAFFORD

**SPERR MESSENGER:** 10 oz. tank, engine mount, 3 1/2" wheel (2), 1" wheel (1), flex cable (1), 4-40 bolts (1), 2 rods, 2 links, 5/32" collars (1), 1/16" collars (1), 20 large hinges.

**WEEKENDER:** 12 oz. tank, engine mount, 2 1/2" wheel (2), 2 1/2" wheel (1), flex cable (2), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (2).

**BUCCANEER:** 4 oz. tank, 1 1/2" spinner, engine mount, 1 1/2" wheel (2), 1/2" wheel (1), flex cable (1), 4-40 bolts (1), 2 rods, 2 links, 12 small hinges.

**TOMKITTY MK 15:** 4 oz. tank, 1 1/2" spinner, engine mount, 1 1/2" wheel (2), 1 1/2" wheel (1), flex cable (1), 4-40 bolts (1), 2 rods, 2 links.

**TOMKITTY MK 40:** 8 oz. tank, 2 1/2" spinner, engine mount, 2 1/2" wheel (2), 1 1/2" wheel (1), flex cable (1), 2 rods, 2 links, 5/32" collars (2), 15 large hinges.

**TWIN COMANCHE:** 8 oz. tank (2), 2" spinner (2), engine mount (2), 2 1/2" wheel (3), flex cable (2), 2 rods, 2 links, 5/32" collars (1).

**AIRCORBA P-39:** 6 oz. tank, 2 1/2" spinner, 2 1/2" wheel (2), 2" wheel (1), flex cable (1), 2 rods, 2 links, 5/32" collars (2).

**COMANCHE:** 12 oz. tank, 2" spinner, engine mount, 2 1/2" wheel (3), flex cable (1), 2 rods, 2 links, 5/32" collars (2), 19 large hinges.

**ACRO SPORT:** 12 oz. tank, 2" spinner, engine mount, 2 1/2" wheel (2), 3/4" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (1), 1/16" collars (1), 19 large hinges.

**CHIPMUNK:** 12 oz. tank, 1 1/2" spinner, engine mount, 2 1/2" wheel (2), 1 1/2" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (1), 1/16" collars (1).

**AIRCORPE:** 12 oz. tank, 1 5/8" spinner, engine mount, 2 1/2" wheel (2), 2" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (2), 15 large hinges.

## STERLING

**PIPER TRI-PACER:** 8 oz. tank, 1 1/2" spinner, no. 64, 2 1/2" wheel (3), flex cable (1), 2 rods, 2 links, 5/32" collars (2), 6 small hinges.

**CESSNA 180:** 2 oz. tank, no. 32, 2" wheel (2), 1" wheel (1), 4-40 bolts (1).

**S.E. 5A:** Flex cable (1), 4-40 bolts (1), 2 rods, 2 links, 5/32" collars (1).

**FLEDGLING:** 6 oz. tank, 2" spinner, 3" wheel (2), 2 1/2" wheel (1).

**CITABRIA:** 6 oz. tank, 1 1/2" spinner, 2 1/2" wheel (2), 5/32" collars (1), 1/16" collar (1), 1" wheel (1).

**MINI-FLEDGLING:** 2 oz. tank, 1 1/2" spinner, 2" wheel (2), 3/32" collars (1).

**CORSAIR 1A:** R-2 tank, 2 1/2" wheel (2), 3/4" wheel (1), 3/32" collars (1), 1/16" collars (1).

**PIPER CRUISER:** 8 oz. tank, no. 64, 3 1/2" wheel (2), 1 1/2" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (1), 1/16" collars (1), 15 small hinges.

**SEARMAN PT-17:** 12 oz. tank, 4 1/2" wheel (2), 1 1/2" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (1), 3/32" collars (1), 17 large hinges.

**FOKKER D-VII:** SS-12 tank, 5" wheel (1), 5/32" collars (2).

**GAZARIATOR:** 10 oz. tank, 2 1/2" spinner, 3" wheel (2), 2 1/2" wheel (1), 5/32" collars (2).

**STINSON RELIANT:** 8 oz. tank, 3" wheel (2), 1 1/4" wheel (1).

**WACO:** R-8 tank, 3 1/2" wheel (2), 1 1/2" wheel (1), flex cable (1), 5/32" collars (1), 3/32" collars (1).

## SUREFLITE

**SKYLANE 182:** 4 oz. tank, 1 1/2" spinner, no. 64, 2 1/2" wheel (2), 2" wheel (1), 1/8" collars (1), 5/32" collars (1).

**BABY BIRDY:** 1 oz. tank, 1 1/2" spinner, engine mount, 2 rods, 10 small hinges.

**FOAM J-3 CUB:** 4 oz. tank, no. 64, 3" wheel (2), 1" wheel (1), 6-32 bolts (1), 3 links, 5/32" collars (1).

**SPITFIRE:** 6 oz. tank, 3" wheel (2), 1" wheel (1), 6-32 bolts (1), 5/32" collars (1), 1/16" collars (1).

**PETE:** 1 1/2" spinner, 2 1/2" wheel (2).

**J-3 CUB 1A:** No. 64, 2" wheel (2).

**EYE SOAR:** No. 64.

**SPORTFIRE:** SS-6 tank, 2 1/2" spinner, 2 1/2" wheel (2), 3/4" wheel (1), flex cable (1), 6-32 bolts (1), 5/32" collars (1), 1/8" collars (1), 10 small hinges.

## TOP FLITE

**BEARCAT:** R-10 tank, 3" wheel (2), 1 1/4" wheel (1), flex cable (1), 6-32 bolts (1), 3/16" collars (1), 3/32" collars (1), 15 large hinges.

**CORSAIR F4U-1A:** R-12 tank, 3 1/2" wheel (2), 2 1/2" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 2 links, 3/16" collars (1), 3/32" collars (1), 15 large hinges.

**HEADMASTER:** 4 oz. tank, no. 64, 2 1/2" wheel (2), 2 1/2" wheel (1), flex cable (1), 4-40 bolts (1), 2 rods, 5/32" collars (2), 7 small hinges.

**NOBLER:** SS-8 tank, 2 1/2" spinner, 3" wheel (2), 2 1/2" wheel (1), flex cable (2), 2 rods, 2 links, 5/32" collars (2), 15 small hinges.

**FRESHMAN TRAINER:** SS-6 tank, 2" spinner, 2" wheel (2), 1 1/2" wheel (1), flex cable (2), 2 rods, 2 links, 5/32" collars (2).

**S.E. 5A:** SS-10 tank, 5" wheel (2), flex cable (1), 6-32 bolts (1), 5/32" collars (1), 15 large hinges.

**CONTENDER 40:** CRST-10 tank, 2 1/2" spinner, (1), 2 rods, 2 links, 5/32" collars (1), flex cable (2).

**TAURUS:** CRST-10 tank, 2 1/2" spinner (1), 2 rods, 2 links, 5/32" collars (1), flex cable (2).

**HEAD MASTER:** SS-8 tank, 2" spinner (1), 2 1/2" wheel (3), 5/32" collars (1), flex cable (2).

**CONTENDER:** 12 oz. tank, 2 1/2" spinner, 2 1/2" wheel (3), flex cable (2), 2 rods, 2 links, 5/32" collars (2).

**P-51B MUSTANG:** 12 oz. tank, 3 1/2" spinner, 3" wheel (2), 1 1/2" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 4 links, 3/16" collars (1), 1/16" collars (1).

**P-40 WARHAWK:** 12 oz. tank, 3 1/2" spinner, 3 1/2" wheel (2), 1 1/2" wheel (1), flex cable (1), 2 rods, 4 links, 5/32" collars (1), 1/16" collars (1).

**AIRCORBA P-39:** 12 oz. tank, 3 1/2" spinner, 3" wheel (2), 1" wheel (1), flex cable (1), 6-32 bolts (1), 2 rods, 4 links, 5/32" collars (2).

**P-47D:** 12 oz. tank, 3 1/2" wheel (2), 1" wheel (1), flex cable (1), 2 rods, 4 links, 5/32" collars (1), 6-32 bolts (1), 1/16" collars (1).

## TOWER

**M.A.N. TRAINER:** SS-8 tank, 2 1/2" spinner, no. 64, 2 1/2" wheel (3), flex cable (2), 4-40 bolts (2), 2 rods, 2 links, 5/32" collars (2), 15 large hinges.

**SHRIKE COMMANDER 09 TWIN:** CRST-4 tank (2), 1 1/2" spinner (2), 1 1/2" wheel (1), 2" wheel (2), 3/16" collars (1), 1/8" collars (1), 2 links, 2 rods, flex cable (2), 12 small hinges, 3 small rudder horns.

## BOB VIOLETTE

**SKYHAWK:** 14 oz. tank, 2 1/2" wheel (2), 2" wheel (1), flex cable (1), 1 rod, 6 links, 5/32" collars (2), 21 large hinges.

## VK MODELS

**CHEROKEE BABE:** 8 oz. tank, engine mount, no. 64, 2 1/2" wheel (3), flex cable (2), 4-40 bolts (1), 2 rods, 2 links, 5/32" collars (2), 15 small hinges.

**SUPER CORBEN:** 8 oz. tank, 1 1/2" spinner, 3 1/2" wheel (2), flex cable (1), 4-40 bolts (1), 2 rods, 2 links, 15 small hinges.

**CHEROKEE:** 12 oz. tank, no. 64, 2 1/2" wheel (2), 2 1/2" wheel (1), flex cable (2), 6-32 bolts (1), 2 rods, 2 links, 5/32" collars (2), 15 large hinges.

**FOKKER TRIPLANE:** 10 oz. tank, flex cable (1), engine mount, 6-32 bolts (2), 2 rods, 4 links.

**NIEUPORT 17:** 10 oz. tank, engine mount, 4 1/2" wheel (2), flex cable (1), 2 rods, 4 links, 15 large hinges.

**SOPWITH CAMEL:** 10 oz. tank, engine mount, 4 1/2" wheel (2), flex cable (1), 6-32 bolts (1).

## WING

**LOVE MACHINE:** 8 oz. tank, 2 1/2" wheel (2), 2 1/2" wheel (1), 5/32" collars (2).



# MODEL GLIDER KITS

## Gliders

As the name implies, the glider has no engine. It flies by descending a little for each bit it travels forward. It is trading its potential energy of altitude for the kinetic energy of forward flight. This trade-off provides the airspeed necessary for flight. The less altitude that is "spent" by a glider in order for it to keep flying, the more efficient it is. If a plane is efficient enough to use rising currents of air with which to maintain flight, it is called a "sailplane". The sport of "sky-sailing" is called "Soaring."

In order for a glider to stay up, it must find rising air from time to time. But even if this air is rising, it must be rising at a rate faster than the rate at which the glider sinks. Air that is rising at the same rate as the glider's sink rate, or faster than that, is known as "lift."

Lift is unseen, but it is there. You can find it anywhere the air is bound to rise. Air will rise as the ground rises. The more steeply the ground rises, the faster the air must rise up with the hill in order to keep moving with the main air mass. When you encounter lift caused by this effect, it is called "slope lift", and the type of flying, "slope soaring". A good slope will allow the air to rise smoothly, giving you a nice, continuous band of lift near the crest of the hill.

Slope soaring is nice, because the glider will stay up as long as the wind blows, or until you get tired of flying, or the batteries run out (choose any or all of the above). When you slope soar, you just toss your glider into the wind over the valley below, and guide it straight ahead into the lift. When you hit the lift area, you may have to increase forward pressure on the stick in order to maintain a level-flight attitude. Turns are made away from the hill, only, so that you avoid a crash on the hill, itself.

The other place you will encounter rising air is in a thermal. A Thermal is a "bubble" of air that is warmer than the surrounding air. Being less dense than surrounding air, this area will rise until it cools off to the local ambient temperature of the air at higher levels. You can look for thermals where localized areas on the ground may be heated to a higher temperature than other areas. Plowed fields will be warmer than forested areas, paved roads warmer than surrounding pastures (especially at crossroads). Parking lots will cause a tremendous heating of the air above it, and you'll probably find a thermal near one.

The only way you can be sure you have found a thermal is when the glider either makes a sudden change in pitch or roll. You must be sure that you, the pilot, have not inadvertently caused this change, yourself, by making a sudden movement of the stick. Smoothness is the rule, here.

Once you have blundered into lift, the way to stay in it now becomes the problem. If the lift is over a large enough area, you can circle in it and keep the plane relatively centered in it. If you are not exactly where you bumped into the lift, just keep passing the glider through the area, and you'll probably hit some more.

If the lift is strong, you may find that the glider is rising so fast that it will be out of sight in no time. In this case, just

fly out of the side of the lift, and make steep turns to lose altitude. Use as much elevator as needed in order to keep the fuselage near a level attitude. This way, you'll keep from diving the plane, and keep from building too high an airspeed. Don't try to hold the nose AT level, as you may stall . . . just keep a small nose-down attitude and you should come down smoothly, quickly, and without drifting too far downwind.

Sometimes, you'll be enjoying the flight so much that you'll not be conscious of your altitude until the bird vanishes from sight. If this happens, you're not alone. You've just become "Soar-Drunk" and now must fight for your bird . . . the sky wants it, but it's yours! The easiest way to get it back is to smoothly pull the stick into one of the corners, giving you full "up" elevator, and full rudder. The glider should start a spin, and hopefully, the lift will not be so strong that the glider won't descend. Now you should look near the last piece of sky it was in, maybe a little downwind of that spot, and hope you'll see it before it hits the ground. This method is not sure-fire, but it has helped me once or twice.

Choosing your glider: If you are just starting to get into R/C Soaring, your first choice is important, as the wrong choice is as much a hindrance to enjoyment as dead batteries in your radio!

For the outright novice, a glider in the 72" to 100" range is the best choice. The smaller gliders are easier on the budget, yet they fly well, are usually less complex to build, and will respond better to the controls. Larger gliders tend to respond quite slowly, and the beginner may not be able to apply the controls properly to "lead" the ship as it flies. Smaller gliders respond instantly, but smoothly, which is what the novice requires.

If you're an experienced power flier, you can just choose the ship you like and go ahead. The only problem: you will have some trouble adjusting to the sluggishness of response to control input, and the very, very . . . veerry flat glide angle. You'll probably overshoot your first landings.

Below is a list of the glider kits we carry:

**Up to 72":** ACE Ace High Glider; AFI Super Malibu; AIR Square Soar; COX RTF Eagle; CRA Drifter II, Golden Eagle; DOD Hijacker II, GBG Gentle Lady; HIF R0-8; MAR Wanderer 72", Windward; MTN Coyote, SR-7, Katie II; MID Silent Squire; MRC RTF Youngstar; SOU Top Cat.  
**73"-100":** AFI ASW-15, Super Monterey; AIR Super Questor, Olympic II; BRI Soar Birdy, Big Birdy; CRA Windrifter, SD-100, J-Bird; EST Skysailer; HIF Mirage; MID Lil T; SMI Sea Breeze.  
**100" & Up:** AIR Aquila, Aquila Grande; AFI ASW-17, Californian; CRA Sallaire, Viking MK I & MK II; DOD Maestro MK III, Meagan, Camano; MAR Bird of Time, Windfree.  
**FREE FLIGHT:** NOP Nimbus 4.

A glider cannot achieve any altitude on its own unless it is placed up in the air where it can begin to work with the air currents. There are many ways of launching a model glider up to altitude: winch, hi-start, power pod, and hand tow.



The winch is just what it sounds like. It is a device that reels in line at a good clip, allowing the glider to *gain flying and then climb speed*. The glider stays attached to the line (called the towline) until it cannot climb any higher, then the line drops off the hook on the glider's belly, and comes to earth while the plane continues onward.

A high-start is really nothing more than a catapult with a lo-o-o-o-o-oong towline. It consists of a long nylon line which is tied to what, in effect, is a great big rubber band (usually rubber tubing is used). The entire affair is stretched out, the glider attached to the towline and let fly!

A power pod, while a curse to purists, is a simple thing to use and really very effective if you don't have the field or desire to use a winch or hi-start. All a power pod does is to mount a small engine above the wing, or below the fuselage. You run the engine until it runs out of fuel, and then you just fly the plane as a glider.

Hand-Towing the glider will do two things other than launching your glider. It will take inches off your waistline, or lose you a few friends. A hand tow is really not recommended except for the lightest of the R/C soarers. A large glider probably needs more airspeed than you can provide, so your friends will usually refuse to help you out by being the ones who must tow the beast!

## The Hi-start

The Hi-start is a simple catapult, and its use is very simple. A hi-start consists of a 100' length of rubber tubing, and 350' of line. This is the standard size of the American hi-start, and is approved for competition.

To use a hi-start, lay it out with the rubber into the wind, about 800'. Stake the rubber end down, and lay out the line downwind. Now you must stretch out the hi-start. The rubber tubing may be stretched out 350% of its length. Walk out about 115 3-foot paces (about 350'). For windy conditions, you'll need less stretch.

All of the preceding is, of course, very simple, and not at all mysterious. Next comes the launch. For a person new to a hi-start, this appears to be a "moment of truth," since once you start a launch, you are committed to its completion.

The part that gives people trouble is the actual launch. To insure a good launch, first be sure your glider is balanced as per the plans. Then make sure the trim settings are close to where they will belong. Discover this by hand-gliding the machine. When both of these are done, you're ready for launch.

**To launch:** First turn on your receiver and transmitter. Don't forget this step! Hold the glider firmly and hook the hi-start's tow-ring to the towhook of the glider. Gradually allow tension to be applied to the glider. Hold the plane

firmly while you do this, so the glider will not jerk out of your hands.

Hold the glider above your head so that you won't get smacked in the head by the glider when you release it. Check your control operation one more time. Hold the glider with the wings level and with the nose up at about a 45° angle. Take a deep breath and let go (heavier gliders in calm air may need a gentle throw to get an effective launch).

The glider will immediately start to climb upward very steeply. Do not touch the elevator control. Just use the rudder to keep the glider heading into the wind. The glider will do quite well with your "help" upon the elevator.

As the glider gets to the top of its ride on the hi-start, it will automatically level off. Allow the glider to proceed forward until it appears to be over the stake at the far end of the hi-start. At about this time, the glider will suddenly have the line fall off, and you're now in free flight! The line will drop, with the parachute laying the line out directly downwind, to be ready for the next launch.

Occasionally, the glider will not seem to "want" to come off the line. This is usually found on windy days. Just apply a little of "down" elevator to make the glider speed-up, and the line will come off.

The trick is to place a visible marker on the ground at your launch point, so that you will not have to count paces, or measure the distance every time you want to launch. You can also put a stake in the ground at this point so that you can pick-up the glider while the hi-start is stretched out. Do not allow the rubber to remain stretched for a long period of time . . . just enough to allow you to get your glider ready for hook-up — just a few moments.

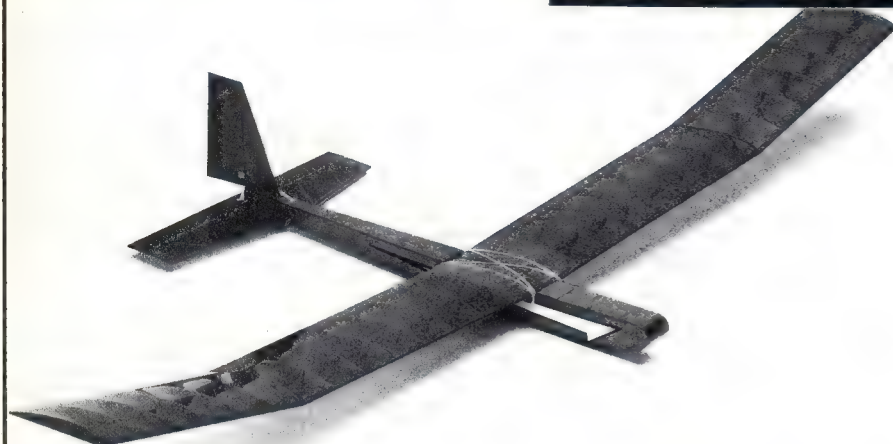
**CAUTION!** Do not allow anyone to be between the glider and the far end of the hi-start, or near the line while it is being pulled out. If the line came loose, somebody could become seriously injured by the whipping of the line. When you are stretching out the hi-start, hold the tow-ring firmly, or hold the parachute firmly. If anyone is walking with you, have them walk to one side or in front of you, but not behind you.

**Notes:** Avoid the use of elevator during your launches. If the glider is set-up correctly elevator will not help you get better launches. Once you have your glider adjusted for flight, and have finalized the trim settings, you must work on the position of your towhook.

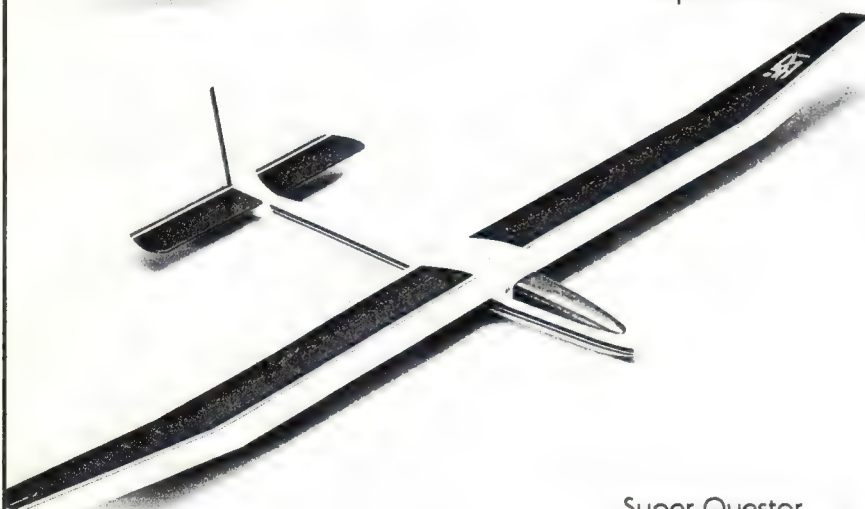
Try a hi-start. You'll find that it is an economical way to launch your gliders. It's also quiet, clean, and about the best way for a person to launch his machine when he is alone.



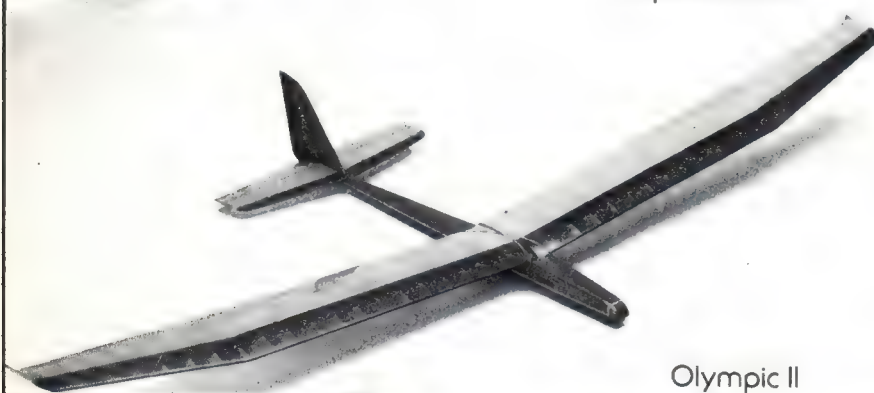
## AIRTRONICS



Square Soar



Super Questor



Olympic II



Outstanding design features and excellent flight characteristics have made Airtronics sailplane kits world famous. Their contest success in National and International competition is without equal. Offered are a full range of kits to meet the demands of the novice, as well as the advanced modeler. In addition, we offer a complete line of launch accessories.

### Square Soar™

**Easiest to build for beginners!**

High-strength plywood fuselage and pop-off surfaces make this plane resistant to crash damage. For slope or thermal flying with standard Hi-Start.

Wingspan: 72" length: 34.6"

Stock No.: 900101 Square Soar

### Super Questor™

**High-performance model for 2-meter class competition!**

Designed for thermal or slope flying. Highly prefabricated for quick building. Two-piece wing for easy transport.

Wingspan: 80" length: 45.5"

Stock No.: 900205 Super Questor

### Olympic II™

**A winner in Standard class competition!**

Large wing area for slow floating glide. Easy construction. Wingspan: 99.9" length: 49"

Stock No.: 900208 Olympic II

### Aquila™

**World Champion 1977-78!**

Most successful competition sailplane in the world. Features landing spoilers, adjustable towhook, high level of prefabrication. 2 or 3-channel flying. Wingspan: 99.9" length: 46.2"

Stock No.: 900206 Aquila

### Aquila Grande™

**Unlimited class and FAI competition challenger!**

A larger, unlimited performance version of the renowned Aquila. Designed by Lee Renaud, this spectacular sailplane features a pre-joined high quality epoxy fiberglass fuselage for easier building, new semi-symmetrical airfoil for improved L/D and better penetration, new spar design and 5/16 diameter wing joiner. Landing spoilers and adjustable towhook are included. 2 or 3-channel flying. Wingspan: 123" length: 46.8"

Stock No.: 900210 Aquila Grande'

AIR71205	AIRTRONICS 205	SUPER QUESTOR	42.50	32.95	124
AIR71206	AIRTRONICS 206	AQUILA	79.95	59.95	125
AIR71208	AIRTRONICS 208	OLYMPIC II	54.95	40.95	124
AIR71210	AIRTRONICS 210	AQUILA GRANDE	139.95	104.95	125

AIR71101 AIRTRONICS 101 SQUARE SOAR

26.95 21.95 124



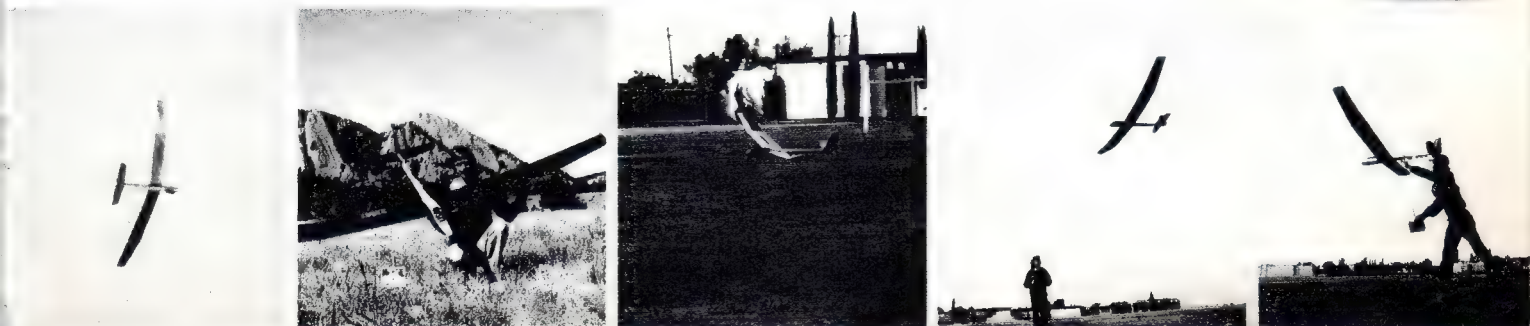
AIRTRONICS



Aquila



Aquila Grande

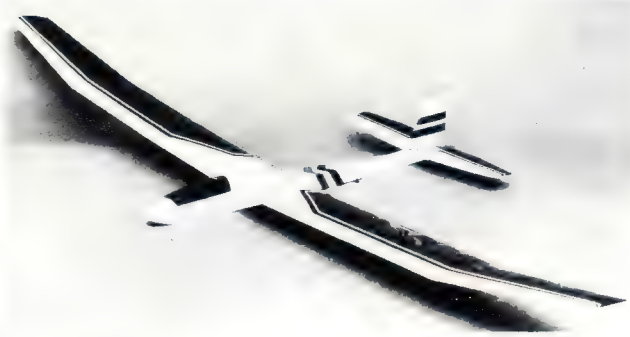




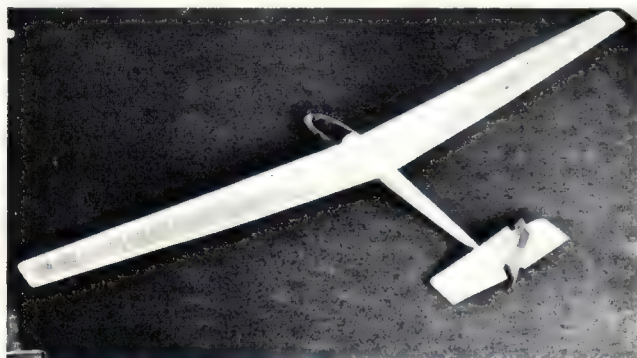
## ASTRO FLIGHT (AFI)



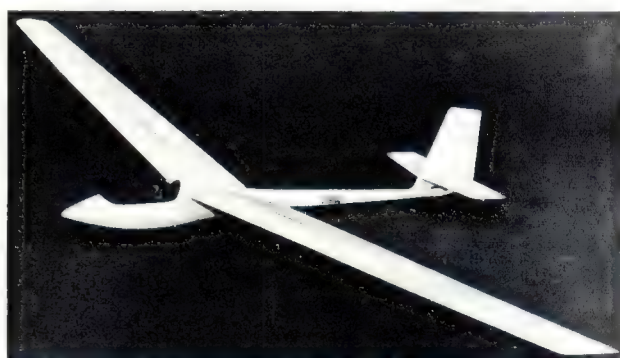
**SUPER MALIBU.** The perfect first sailplane, quick building, very stable, and easy to fly. Can be flown three ways: thermal, slope, or with our astro 05 electric flight system. The deluxe kit features machine cut balsa parts and all hardware. Wing span 72 in., wing area 525 sq. in., two or three channel radio, flying weight 26 to 40 ounces. In August 1970, Bob Boucher set a closed course world's record distance flight of 203 KM with the original Malibu.



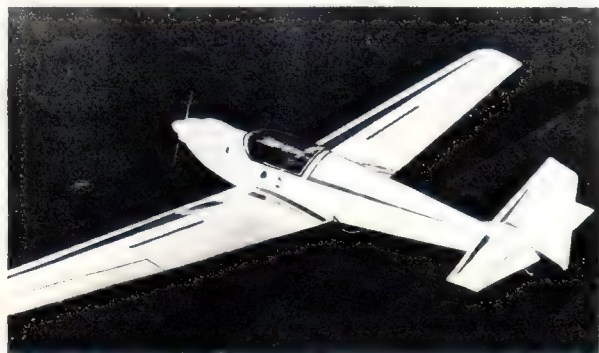
**SUPER MONTEREY.** The Monterey is a big brother to the Malibu featuring a 99 inch span with two piece plug-in wing panels. Its floating glide—hands off stability, and smooth control response make it very competitive in standard class soaring events. The Astro 05 electric powered version has won many electric competitions. The deluxe kit includes machine cut balsa parts and all hardware. Wing span 99 in., wing area 720 sq. in., two or three channel radio, flying weight 30 to 42 ounces.



**ASW-15.** A beautiful stand off scale model of Dr. Alexander Schleicher's standard elan ASW-15. The fuselage is rotationally moulded polyethelene in one single piece, and is extremely rugged. Fuselages are available in six colors, red, white, blue, orange, yellow, and green. The ASW-15 is very clean and fast and is unexcelled on the slopes yet it is light enough to thermal. Wing span 100 in., wing area 650 sq. in., two channel radio, flying weight 40 ounces.



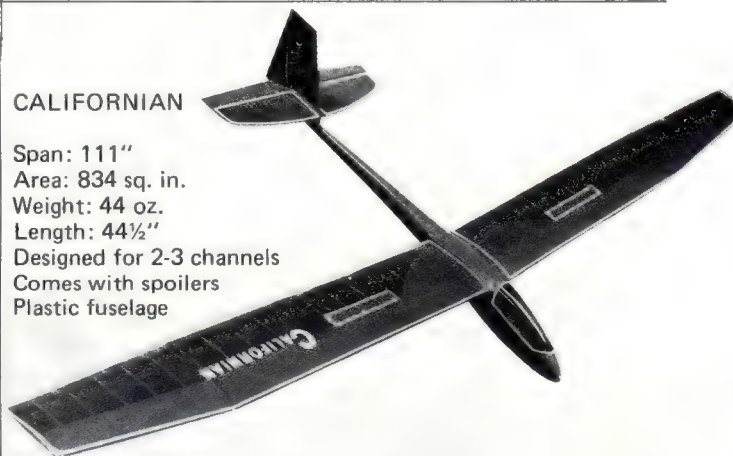
**ASW-17.** A beautiful stand off scale model of Dr. Alexander Schleicher's world famous ASW-17 open class sailplane. The model features fiberglass fuselage and two piece plug-in wing panels with spoiler. A large graceful model for thermal flying, the prototypes of this kit won 1st, 2nd, and 3rd in the scale event at the 1972 California North South Challenge Meet. Wing span 132 in., wing area 980 sq. in., two or three channel radio, flying weight 60 ounces.



**FOURNIER RF-4** Motorglider's an eye catching scale model of the classic Volkswagen powered motor glider, made world famous by Mira Slova's transatlantic flight. This all balsa kit is designed to accept the astro 15 motor or a glo .15 cu. in. engine. Its simple construction and gentle flying habits suit the Sunday flyer, and its classic beauty makes it a perfect project for the serious scale builder. Wing span 72 in., wing area 600 sq. in., Astro 15 or Glow 15, three or four channel radio, flying weight 48 to 64 ounces.

### CALIFORNIAN

Span: 111"  
Area: 834 sq. in.  
Weight: 44 oz.  
Length: 44½"  
Designed for 2-3 channels  
Comes with spoilers  
Plastic fuselage

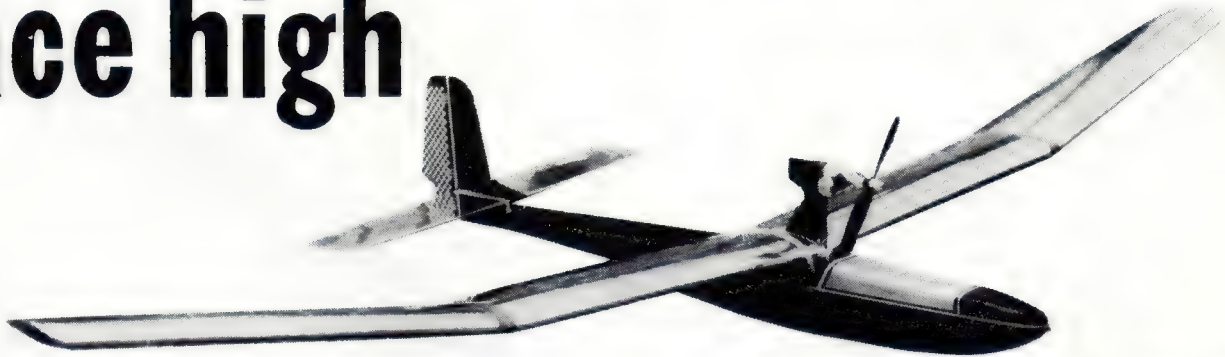


AF171C03	AFI FOURNIER RF-4 MOTOR/GLIDER	54.95	39.95	28
AF171C15	AFI ASW-15 RC SAILPLANE	69.95	52.45	126
AF171C17	AFI ASW-17 RC SAILPLANE	99.95	74.95	126
AF171C20	AFI SUPER MONTEREY 100 IN	54.95	39.95	126
AF171C25	AFI SUPER MALIBU 72 IN	36.95	26.95	126
AF171C30	AFI CALIFORNIAN SAILPLANE	74.95	52.50	126



**ACE**

# ace high



**SPAN:** 70 in.  
**AREA:** 350 sq. in.  
**LENGTH:** 35 in.  
**WEIGHT:** 22-25 oz. with R/O  
**POWER:** Babe Bee .049  
**FUNCTIONS:** Rudder-Only or Rudder-Elevator

ACE72104 ACE 'ACE HIGH' GLIDER

21.50 15.95 127

The Ace High is a balsa fuselage with foam wing beginners glider. It comes with a power pod (engine not included) as shown that will accept a Cox Babe Bee .049. Primarily a single channel glider it can be flown as 2 channel also.

**BRIDI**

## ANNOUNCING A NEW STANDARD CLASS SAILPLANE, OUR BIG BIRDY

All balsa construction with machine cut and sanded parts. Polyhedral wings plug together with 1/4" steel dowel. Building notes and special hardware included.



**99" Wing Span**  
**1047 Sq. In. Wing Area**  
**51 1/4" Length**  
**6.5-8 Oz./Sq. Ft.**  
**Wing Loading**

## IT'S THE BIG BROTHER OF OUR TWO-METER SOAR BIRDY

**78" Wing Span**  
**555 3/4 Sq. In. Wing Area**  
**7 1/8" Wing Chord**



All balsa construction with machine cut and sanded parts. Polyhedral wings. Designed to accept a brick or servos. An .049 engine may be mounted in the nose utilizing an additional ply bulkhead provided in the kit.

BR171100 BRIDI SOAR BIRDY GLIDER  
 BR171200 BRIDI BIG BIRDY GLIDER

22.95 17.95 127  
 42.95 31.95 127



## MODEL GLIDER KITS

# COX

# AMERICAN<sup>TM</sup> Eagle Sailplane

A MAJOR BREAKTHROUGH FOR THE  
FIRST TIME RC FLIER

Cox has successfully fit the thrilling sport of radio-controlled flying into the pocketbook and skill level of the general consumer market! Completely self-contained and ready-to-fly, the silent American Eagle sailplane can be flown practically anywhere - no FCC license required. The unique Hi-Start launching system is simplicity in itself to operate - catapulting the Eagle up to 200 feet in a matter of seconds. From there the si-

lent Eagle soars on its magnificent 4' wingspan in smooth response to the commands of the fully proportional radio. Now the thrills, the satisfaction, the pure fun of RC flying are within the reach of everyone! The American Eagle comes complete with a Hi-Start launching system, factory-installed flight controls, and radio system. Batteries are not included.

- \* Easiest To Fly RC Plane Ever
- \* Everything Included: Sailplane, Radio System and High Start Launcher
- \* Fly Anywhere - No FCC License Required



CCX71C70 CCX 7000 RTF EAGLE SAILPLANE

\$99.95 74.95 128

NEW



AIR POWERED

## DODGSON DESIGNS



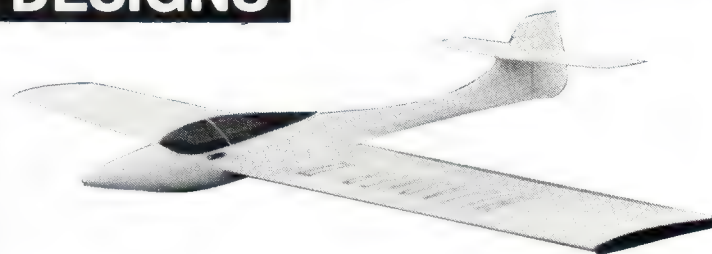
CAMANO

The Camano is probably the greatest advancement in R/C soaring since the introduction of the now legendary Todi in 1972. In fact we almost called it Todi-Hair. The sleek, slender and strong fuselage is a fresh concept in fiberglass and it weighs only 4.5 oz. before top decking is applied. The wing construction is strong and the mounting is stiff. The control linkages are solid and simple. This plane is designed to set the F.A.I. speed course on fire! Specifications: Fuselage Length—44" (less rudder); Fuselage Width—1.5" max.; Fuselage Construction—hand laid seamless fiberglass with wood deck; Wing Span—111.5"; Wing Area—936"; Aspect Ratio—13 to 1; Wing Loading—7.5 oz./sq. ft.; Air Foil—Eppler 193 with undercamber; Wing Construction—"D" tube with fully sheeted top surface; Stabilizer—built-up full flying; Hardware—complete; Total Flying Wt.—50 oz.; 4 channel radio with small to mid size servos; Controls—flaps 36", ailerons 18" coupled to rudder, elevator and spoilers 12".



MAESTRO MK III No. DOD71003

Are you looking for an F.A.I. plane today and finding only yesterday's state of the art sailplanes with thick airfoils, polyhedral, flutter-prone wing construction and lethargic control response? Meet our new Maestro Mk III! Here is a plane with high L/D to cover the most distance possible on the distance course. It has proven light air and thermalling ability second to none for duration. What is most amazing is that the Mk III can fly the speed course in only 12.8 sec. with just 12 oz. of ballast. This means speeds of 70 plus MPH are possible on the straight legs! The new Mk III has many refinements including the new fiberglass tailboom to complement the beautiful fiberglass pod, a new rudder hinge line for smoother control at high speeds and exclusive ballasting instructions for F.A.I. showing the new low-stress ver mulm method of ballasting. Specifications: Fuselage—fiberglass pod & boom; Wing Span—132"; Wing Area—990 sq. in.; Airfoil—8 1/2%; thick flat bottom; Aspect Ratio—18:1; Wing Loading—8 oz. sq. ft.; No. of Channels—3-4; Controls—coupled rudder and aileron, flaps (flaperons), elevator, spoilers. Includes all specialized hardware including spoiler linkage, the coupler & flaperon linkages.



HIJACKER II No. DOD71004

The HiJacker builds fast and easily, is beautiful and durable when finished, and flies on the slope in winds as low as 5 MPH, yet it can cruise at speeds of 50 to 60 MPH. What is more, the HiJacker II is fully aerobatic and a thrill to fly. It boasts the following features: beautifully hand-crafted and joined clear fiberglass fuselage, foam wing cores for fast building, all balsa sheeting supplies, all wood parts machine cut, complete hardware including: Dodgson L-3 aileron linkage, push rods, links & hinges, new fast shape stabilizer requires almost no building or sanding, wing span 72 inches, wing loading 10 oz./sq. ft., chord thickness 8%.



MAESTRO MEGAN No. DOD71005

Build this super glider as a basic span or with tip extensions. Span 128" or 140"; area 1,216 or 1,300 sq. in.; aspect ratio 13.5 to 1 or 15 to 1; loading 8 or 7.5 oz. per sq. ft. High performance open class. Utilized fiberglass fuse and controls system of rudder, elevator, flaperons, and spoilers. Flying weight is 68 oz.

CCD71C03	CCDGSON DESIGN MAESTRO MK III	149.95	126.95	128
CCD71C04	CCDGSON DESIGN HIJACKER II	119.95	107.95	128
CCD71C05	CCDGSON DESIGN MAESTRO MEGAN	169.95	143.95	128
CCD71C06	CCDGSON DESIGN CAMANO	149.95	134.95	128



## CRAFT-AIR

# Drifter II

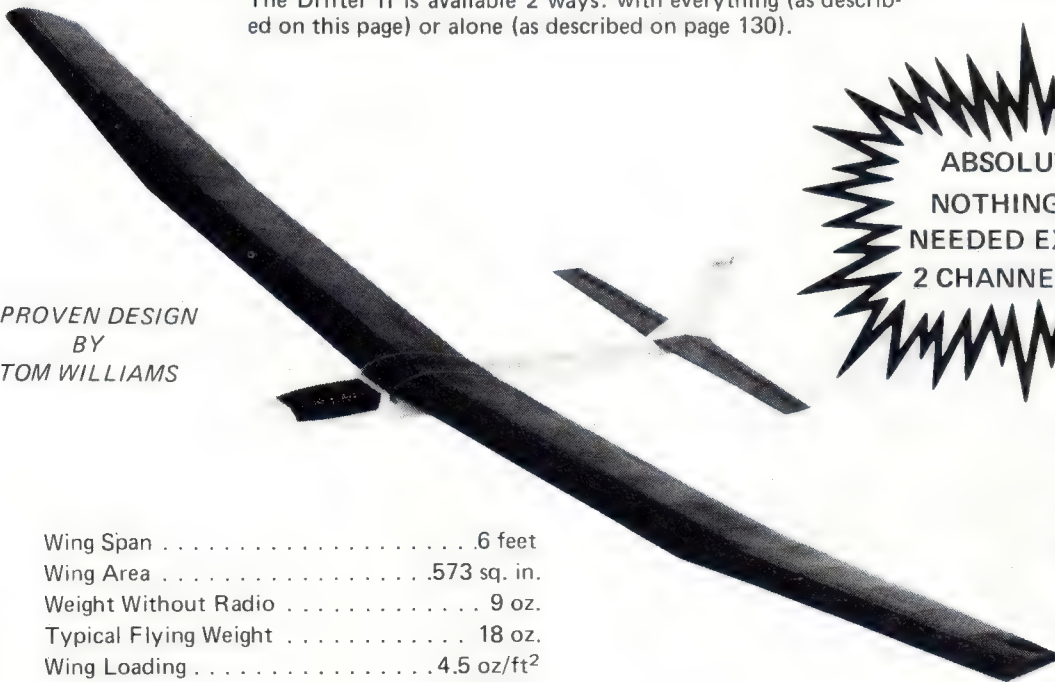
IT'S EVEN EASIER TO BUILD AND FLY A SAILPLANE

MAY VERY WELL BE

THE EASIEST TO FLY RADIO CONTROL TRAINER EVER DESIGNED

The Drifter II is available 2 ways: with everything (as described on this page) or alone (as described on page 130).

A PROVEN DESIGN  
BY  
TOM WILLIAMS



Wing Span ..... 6 feet  
Wing Area ..... .573 sq. in.  
Weight Without Radio ..... 9 oz.  
Typical Flying Weight ..... 18 oz.  
Wing Loading ..... 4.5 oz./ft<sup>2</sup>  
Airfoil ..... FB1151

For more information on  
this great kit, see page 17.

- ALL WOOD
- ALL HARDWARE
- UP-START LAUNCHING SYSTEM  
(Produces about 250' altitude)
- SUPER MONOKOTE COVERING
- CONTROL RODS
- CONTROL ROD CLEAVISES
- CONTROL HORNS
- PRECUT WING RIBS
- I-BEAM WING SPAR
- PRECISION MACHINE SANDED  
FUSELAGE SIDES
- PRECUT PLYWOOD PARTS
- TOW HOOK
- DETAILED PLANS WITH PHOTOS
- PLANS FOR POWER POD
- EXPLICIT STEP BY STEP INSTRUCTIONS
- INSTRUCTIONS TO CONVERT TO  
2 METER SPAN
- EVEN A BOTTLE OF GLUE!

2 METER CLASS COMPETITION SAILPLANE  
YET A TRAINER EXTRAORDINAIRE

EXTREMELY GENTLE STALL  
CHARACTERISTIC MAKES  
GOLDEN EAGLE EASY TO FLY



Epoxy Fiberglass Fuselage —  
I-Beam Spar — Effective  
Spoilers — Fully Turbulated  
Semi-symmetrical Airfoil

Wing Span ..... 99"  
Wing Area ..... .963 in.<sup>2</sup>  
Flying Weight (w/o Ballast) ..... 41 oz.  
Wing Loading ..... 6 1/4 oz./ft.<sup>2</sup>  
Airfoil ..... SS1051

Designed by  
Tom Williams

## GOLDEN EAGLE

THE GOLDEN EAGLE IS A STATE-OF-THE-ART DESIGN. A STANDARD CLASS SAILPLANE WHICH WILL THERMAL WITH THE BEST OF THEM, YET WILL PENETRATE THE WIND EVEN WITHOUT BALLAST. THE GOLDEN EAGLE MAY PROVE TO BE THE BEST KIT FOR THE COMBINED FAI SPEED-DISTANCE-DURATION TASKS.

CRA71001 C.A.#801 DRIFTER II-COMplete 54.95 41.95 129  
CRA71109 CRAFT-AIR #109 GOLDEN EAGLE 99.95 69.95 129



## CRAFT-AIR

### Windrifter

The recognized leader in Standard Class . . .

THE FORGIVINGNESS  
THAT MAKES WINDRIFTER A WINNER —  
MAKES WINDRIFTER EASY TO FLY!



- DELUXE QUALITY KIT
- PRECISION MACHINE SANDED RIBS
- ALL HARDWARE INCLUDED



In 1975, 1976, and again in 1977 the Windrifters took more trophies than any other sailplane.

In 1977 Windrifter SD 100's won three regional grand championships: SC<sup>2</sup> (So. Calif. Soaring Clubs), TS<sup>3</sup> (Tri-State Soaring Society), Great Lakes Soaring League, as well as the AMA NATS (Std. Cl.).

More pilots have won more trophies with Windrifters than with any other R/C sailplane—ever.

Wing Span . . . . . 99.8 in.  
Wing Area . . . . . 903 sq. in.  
Lifting Surface . . . . . 1042 sq. in.  
Wing Loading\* . . . . . 6.38 oz./ft.<sup>2</sup>  
Flying Weight\* . . . . . 40 oz.  
Airfoil . . . . . Craft-Air 11½% flat bottom

\*Without ballast. Up to 4 lbs. ballast may be added.

Optional Spoiler Kit  
100

### Drifter II

May very well be the easiest  
to fly R/C Model ever designed.

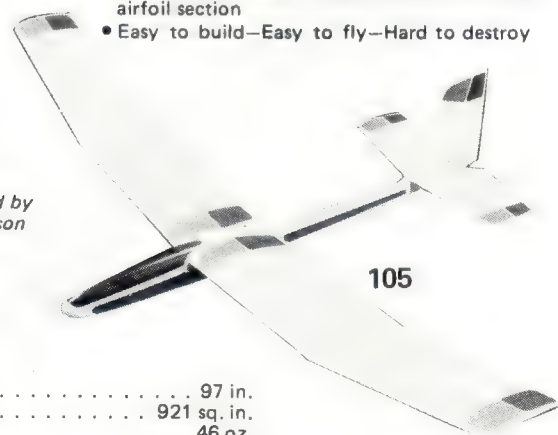
\*machined parts \*top quality wood \*I beam spar \*fuselage reinforced with plywood & triangle stock longerons \*plans for power pod \*and with all of the extra goodies, including . . . control rods . . . clevises . . . hinges . . . tow hook . . . servo mounting material . . .

. . . absolutely nothing else needed except glue, covering, and radio.

CRAFT1002	CRAFT-AIR #108 DRIFTER II	22.95	16.95	130
CRAFT1003	CRAFT-AIR #102 WINDRIFTER	49.95	34.95	130
CRAFT1004	CRAFT-AIR #103 SD 100	69.95	49.95	131
CRAFT1005	CRAFT-AIR #104 SAILLAIRE	149.95	99.95	131
CRAFT1006	CRAFT-AIR #105 J-BIRD GLIDER	69.95	49.95	130
CRAFT1071	CRAFT-AIR #106 VIKING MK I	79.95	55.95	131
CRAFT1072	CRAFT-AIR #107 VIKING MK II	79.95	55.95	131
CRAFT1073	CRAFT-AIR GLASS VIKING MK I	119.95	89.95	131
CRAFT1074	CRAFT-AIR GLASS VIKING MK II	119.95	89.95	131

### J-Bird HIGH PERFORMANCE TRAINER

- Superb thermal performance, equal to the best contest sailplanes
- Almost indestructible ASA (not ABS) plastic fuselage
- Balsa crutch insures easy, accurate fuselage assembly
- Foam wings insure precise under-cambered airfoil section
- Easy to build—Easy to fly—Hard to destroy

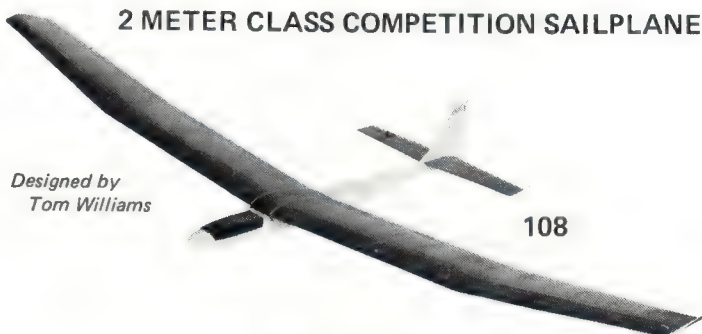


Designed by  
Hi Johnson

Wing Span . . . . . 97 in.  
Wing Area . . . . . 921 sq. in.  
Weight . . . . . 46 oz.  
Wing Loading . . . . . 7 oz./sq. ft.

The J-BIRD will teach an aspiring pilot to fly more easily and quickly than any sailplane available. It will build easier and faster and stay together longer than most. Hi Johnson says, "If the ship you are going to build is the one you are going to learn radio control soaring with, there just isn't a better sailplane around today."

### 2 METER CLASS COMPETITION SAILPLANE



Designed by  
Tom Williams

#### SPECIFICATIONS

##### 6 FOOT WING

Wing Span . . . . . 71½"  
Wing Area . . . . . 573 sq. in.  
Weight Without Radio . . . . . 9 oz.  
Typical Flying Weight . . . . . 18 oz.  
Wing Loading . . . . . 4.5 oz/ft.<sup>2</sup>  
Airfoil . . . . . Windrifter 11½% Flat Bottom

##### OPTIONAL 2 METER WING\*

Wing Span . . . . . 78¾"  
Wing Area . . . . . 625 sq. in.  
Weight Without Radio . . . . . 10 oz.  
Typical Flying Weight . . . . . 19 oz.  
Wing Loading . . . . . 4.3 oz/ft.<sup>2</sup>  
Airfoil . . . . . Windrifter 11½% Flat Bottom

\*material for 2 meter modification listed but not included.



# CRAFT-AIR

## Windrifter SD100

BALANCED RUDDER  
FULL FLYING STABILIZER  
SYMMETRICAL AIRFOIL TAIL SURFACES  
PLUG-IN WING AND STABILIZER



103

Wing Span . . . . . 99.8 in.  
Wing Area . . . . . 903 sq. in.  
Lifting Surface . . . . . 1042 sq. in.  
Wing Loading\* . . . . . 6.38 oz./ft.<sup>2</sup>  
Flying Weight\* . . . . . 40 oz.  
Airfoil . . . . . Craft-Air 11½% flat bottom  
\*Without ballast. Up to 4 lbs. ballast may be added.

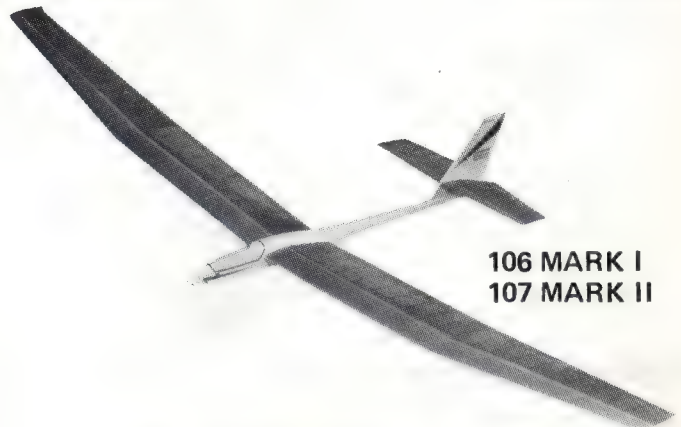
Pre-formed, rugged plastic fuselage—made of a plastic new to model aviation: ASA (not ABS). With the NEW INSTA-BUILD assembly method, the results are a stronger, lighter and quicker built fuselage.

COMPLETE HARDWARE AND CONTROL RODS

## VIKING

Designed to win!  
(not only light air thermal events, but FAI)

Wing Span . . . . . 3 meters (118 in.)  
Wing Area . . . . . 1200 sq. in.  
Wing Loading . . . . . 6½ oz./sq. ft.



106 MARK I  
107 MARK II

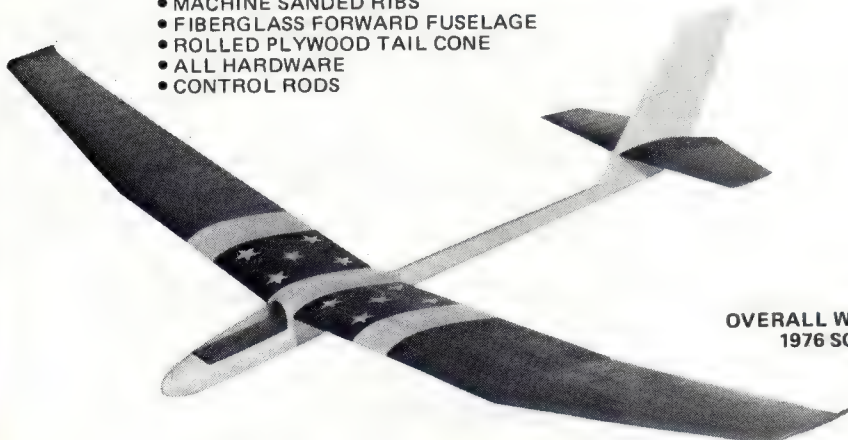
THE VIKING IS THE MOST VERSATILE OF ALL SAILPLANES.

The VIKING MARK I has the same airfoil used on the WINDRIFTER and SAILAIRE. The VIKING MARK II has a semi-symmetrical airfoil which has launching and thermalling characteristics similar to the WINDRIFTER, but is extremely competitive in FAI speed runs. Both versions are available with full flying stab or conventional stab and elevator, at the builder's choice. Both versions are available with an attractively shaped wood fuselage or a molded plastic fuselage.

Owners of either version may purchase the other wing separately, giving them the versatility of one sailplane designed to win both FAI and marginal lift thermal events.

## SAILAIRE

- MACHINE SANDED RIBS
- FIBERGLASS FORWARD FUSELAGE
- ROLLED PLYWOOD TAIL CONE
- ALL HARDWARE
- CONTROL RODS



Wing Span . . . . . 150 in.  
Wing Area . . . . . 1643 in.<sup>2</sup>  
Flying Weight . . . . . 5.3 lbs. to 11 lbs.  
Lifting Surface . . . . . 1931 in.<sup>2</sup>  
Airfoil . . . . . Craft-Air—12% flat bottom  
Wing Loading . . . . . 7.4 to 15.4 oz./ft.<sup>2</sup>  
Surface Loading . . . . . 6.3 to 13.1 oz./ft.<sup>2</sup>  
L/D (estimated) . . . . . over 20:1  
L/D with spoilers deployed . . . . . 3:1

OVERALL WINNER OF THE  
1976 SOAR NATS

104

SAILAIRE IS A SERIALIZED AND REGISTERED SAILPLANE.

Registered Sailaire owners have been, and will be, individually contacted by the designer, Tom Williams, to advise them of any new technical developments which result from Craft-Air's on-going development program. This exclusive Craft-Air service is, of course, without charge. Just one more reason why the Sailaire is the finest kit ever produced—made for those who care enough to fly the very best.



# ESTES

## SKYSAILER

### 2 METER SAILPLANE — No. 4044

Wingspan 2 Meters (78.75")  
For 2 or 3 channel radio (Ailerons & elevator 2/motor optional)  
Flying wt. w/Estes SkyMite E.M. System 1000 - 30 to 32 oz.  
Designed to accept Estes SkyMite Electric Motor.

Wing Area 520 sq. in.

Molded lightweight "SkyLite" foam wing and tail with rigid vinyl, thermally bonded skin have been tested at 7G at 2 lb. airplane weight. No finishing required, simply add trim. Can be built and flown in one weekend. All control surfaces are factory installed. Complete instructions for fast, easy construction, plus hardware and torque rods are included. Performance is outstanding, but docile enough for the novice. May be flown without motor, on winch, or hi-start. E193 airfoil gives excellent thermalling ability yet excels in penetration. Kit is complete except for adhesive, radio and motor (Estes SkyMite Electric Motor No. 4020 is recommended).

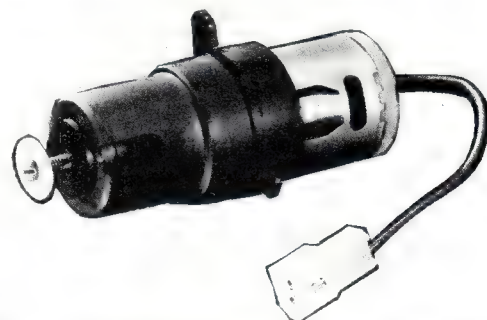
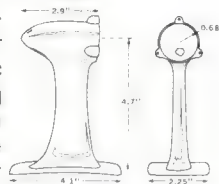
SEE PAGE 44  
FOR MORE ESTES  
ELECTRIC EQUIPMENT.

### SKYSAILER FLIGHT SYSTEM 1000

Complete SkySailer 2 Meter Sailplane Kit (No. 4044) with SkyMite E.M. System 1000 (No. 4030). Features external charging receptacles, so disassembly of airplane is not needed to recharge batteries.  
No. 4064

### SKYMATE Power Pod—No. 4081

Two-piece unit made of injection molded ABS plastic. For use with SkyMite electric motor to power assist existing sailplanes of up to 2 meters in wing span, eliminating the need for "hi-starts" or winches. SkyMate (Pod Only)



### SKYMITE Electric Motor—No. 4020

For use in models up to 550 sq. in. wing area and flying weight up to 36 oz., the SkyMite develops from 10 to 12 oz. of thrust with props ranging from 8" x 4" to 10" x 5". This is approximately the same thrust as an .049 glow engine with a 6" x 3" prop. Designed primarily as a power

assist for sailplanes, up to 2 meters in wing span, the SkyMite is also an excellent free flight power plant, as attested to by its prototype record at the '79 NATS: 1st and 2nd Jr., 2nd Sr., and 3rd in Open. With its relative high power to weight ratio, the SkyMite is also an ideal choice of power for small sport or scale models.

Weight of SkyMite with 3.6:1 Estaloy gear head - 70 g. To be used with Estes SkyPak battery packs: No. 4091 . . . 150 MAH 30-45 secs motor run. Wt.-80 g. No. 4092 . . . 250 MAH 1½ - 2 min. motor run. Wt.-122 g. No. 4094 . . . 500 MAH 3-4 min. motor run. Wt.-174 g.

### SKYMITE E.M. (Elec. Motor) SYSTEM 1000 - NO. 4030

SkyMite electric motor (No. 4020), plus SkyWire wiring harness (No. 4085) and SkyPak 500 MAH battery pack (No. 4094). Weight of complete system is 266 g (9.4 oz.) (This system intended for use in sailplanes with up to 4 minute powered flights. For use in F.F., sport or scale models and shorter powered runs in sailplanes, order motor, wiring harness and battery pack separately.)

### SKYCHARGER Quick-Charge Battery Charger—No. 4087

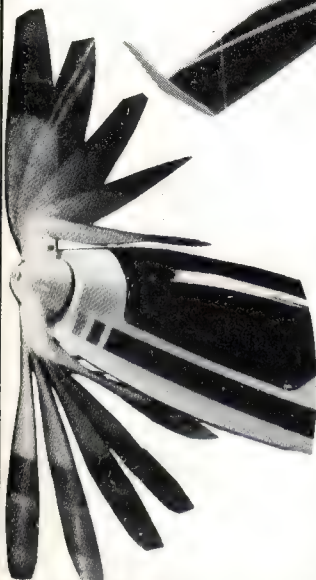
Universal, adjustable, charger for quick-charging, discharging and recharging all Estes SkyPak nicad battery packs from a 12 volt car or motorcycle battery.

### SKYPROP FOLDING PROPS

Estes Electri-Flyers Skyprops are the only domestically made folding props available at this time. Skyprops reduce drag dramatically, thus considerably improving the performance of RC sailplanes.

**SKYPROP 9.5 X 6 . . . . . No. 4082.** All parts necessary to assemble 9.5" x 6" folding prop for use with SkyMite electric motor.

**SKYPROP 14 X 8 . . . . . No. 4083.** All parts necessary to assemble 14" x 8" folding prop for use with SkyMax electric motor.



### SKYWIRE

Wiring Harness—No. 4085

Universal wiring harness with on/off toggle switch, fuse holder, fuse, recharge plug, battery connector and lead wires for use with Estes SkyMite and SkyMax electric motor system.

EST71044	ESTES 4044 SKYSAILER SAILPLANE	60.00	44.95	132
EST71064	ESTES 4064 SKYSAILER 1000	110.00	76.95	132
EST19091	ESTES 4091 SKYPAK 150MA	30.00	23.95	132
EST19092	ESTES 4092 SKYPAK 250MA	30.00	23.95	132
EST19094	ESTES 4094 SKYPAK 500MA	30.00	23.95	132

EST19085	ESTES 4085 SKYWIRE	10.00	8.95	44
EST19087	ESTES 4087 SKYCHARGER	40.00	29.95	44
EST09020	ESTES 4020 SKYMITE	25.00	19.95	132
EST09030	ESTES 4030 SKYMITE 1000	60.00	44.95	132
EST10081	ESTES 4081 SKYMATE POWER POD	6.25	5.65	337
EST14082	ESTES 4082 SKYPROP 9.5X6	6.25	5.65	132
EST14083	ESTES 4083 SKYPROP 14X8	8.00	7.20	132



GOLDBERG

Introducing  
the*Gentle Lady***2-METER SAILPLANE****GREAT FOR LEARNING RADIO CONTROL and  
A SWEETHEART FOR FUN AND COMPETITION!**

One of the best ways to get into Radio Control is with Sailplanes. They use low-cost 2 or 3-channel radios, build easily, and fly slowly enough for novice reactions. Yet there's a real challenge and a thrill in finding rising air currents, and getting long soaring flights!

*Gentle Lady* really is gentle and a lady. Very easy to fly, and stable. Reacts quickly to "lift." Simple to build, yet very clean, and efficient enough for competition. Optional detachable wing tip panels for small cars. Can be flown by high-start, winch, slope soaring, or by small engines or electric power.

WING SPAN ----- 78 1/4"  
WING AREA ----- 663 sq.in.  
WEIGHT (With Radio, Ready To Fly) -- 22-25 oz.  
LENGTH ----- 41"

FOR 2-CHANNEL RADIO, AND TOW, SLOPE, OR  
.049 - .10 ENGINE OR ELECTRIC POWER

KIT SP-1 (No.60)



## MODEL GLIDER KITS

### HI-FLIGHT

## MIRAGE

Forerunner of a New Generation of Sailplane Design



The Mirage kit includes all parts and plans to build either a standard or open class Mirage. Kit features machined ribs; pre-cut formers, doublers and fuselage sides; canopy, complete hardware package, push rods, rolled plans and complete instructions with pictures. 99.75" span. The ultra-light loading of the semi-symmetrical airfoil produces a new dimension in light air performance, yet the Rawdon airfoil gives the Mirage excellent penetration for windy conditions.

## RO-8

**NEW**



The RO-8 features a semi-symmetrical airfoil and T-tail for a bold step forward in two-meter design. The ultra-light loading produces excellent light air performance balanced with superior penetration. 78.8" span. Kit features precision ribs; pre-cut formers, fuselage sides and doublers; complete hardware package, push rods, rolled plans and complete instruction book.

HIF71000 HI-FLIGHT MIRAGE GLIDER  
HIF71100 HI-FLIGHT RO-8 SAILPLANE

69.95	52.45	134
44.95	34.95	134

## MARK'S MODELS

# Wanderer



## 72 INCH WING SPAN

Six feet of low-cost flying fun. If you don't like to build airplanes but love to fly them, then here is your plane. Easy to build and easier to fly, Wanderer will provide hours of fun for kids of all ages. This plane is so stable that it will fly free flight without a radio. The ideal beginners plane. The plans show how to install a small engine so you can fly your Wanderer anywhere, anytime.

Wing Span — 72 in. Wing Area — 563 sq. in. Weight — 14 oz. Without Radio

## 99 INCH WING SPAN

The Wanderer 99 was designed for the sport flyer as a rugged, high-performance machine. The novice, moving from sport flying, will find that his Wanderer 99 can compete with other sailplanes in its class without penalty. Particular attention was paid to the design of the wing. The rugged construction will withstand the most demanding airloads and physical ground abuse. The Wanderer 99 was designed for the person who wants performance, but not at Cadillac prices.

Wing Span — 99 in. Wing Area — 869 sq. in. Weight — 46 oz. With Radio



## MARK'S MODELS

### Windfree

One of the winningest tournament contenders since 1970.



Mr. James Gray, contributing editor to Model Airplane News, has this to say about Windfree:

"It will perform extremely well in your hands and it will improve as you improve — all the way to the top! It is the "winningest" sailplane of all time: the Windfree, by Mark's Models. Here again, the price is only about 1/3 that of the fiberglass sailplanes, and, true, it isn't a scale model of any real, full size bird, but, oh, how it flies! That is the criterion anyway — performance. You'll find the Windfree a somewhat slender and dainty lass, and not as easy to build as some of the others you've tried. It's not as rugged as some of the others, either, but then, you're expected to be able to fly well enough so "crash-proofness" shouldn't be a major consideration. Use, yes, but not abuse! If your rhythm and timing are honed to a keen edge, you and your Windfree can win more trophies against tough competition than any other sailplane you may ever own."

"As for me, I prefer the Windfree to anything I have ever owned."

### Windward

One of the few R/C sailplanes that looks like a real plane. Sheet balsa on the leading edge of the wing and a clear plastic canopy cost more, but these are just a few of the extra features found in the Windward Kit. This plane is designed for both slope and thermal flight. Although designed primarily for the beginner, Windward won 1st Place, Standard Class at the R/C Soaring Nationals—Chicago, and 1st Place, Duration at the Western R/C Soaring Championships.



Wing Span ..... 72 in.  
Wing Area ..... 532 sq. in.  
Weight ..... 24 oz.

**NOTE: ALL MARK'S MODELS SAILPLANES ARE ALL BALSA CONSTRUCTION AND QUALITY IS OF THE HIGHEST LEVEL.**

### "BIRD of TIME"

*A contest winning 118" span sailplane!*

**For Expert Builders/Fliers**



Span ..... 118 in.  
Wing Area ..... 1070 Sq. in.  
Fuselage Length ..... 49.5 in.  
Weight Ready to Fly ..... 41 Oz.  
Wing Loading R.T.F. ..... 5.5 Oz./Sq. Ft.

MAR71C01	MARKS MODELS WINDFREE	44.95	32.50	135
MAR71C02	MARKS MODELS WINDWARD	32.95	24.25	135
MAR71C05	MARKS MODELS WANDERER 72 IN.	24.95	17.95	134
MAR71C06	MARKS MODELS WANDERER 99 IN.	39.95	29.95	134
MAR71C07	MARKS MODELS BIRD OF TIME	59.95	41.95	135



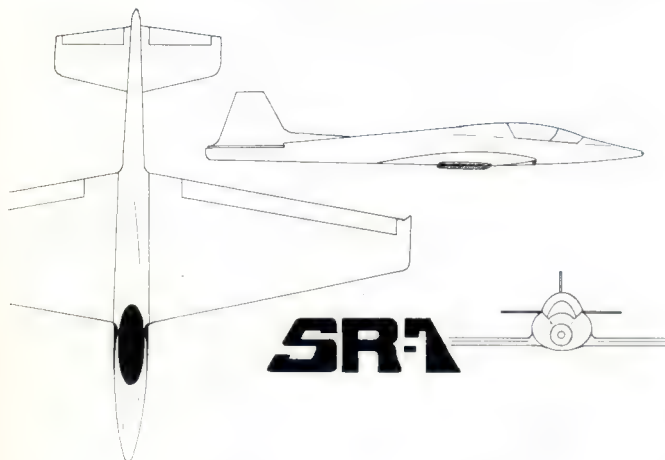


### Coyote

This sleek 72" aerobatic sailplane, featured in the May, 1979 issue of RC Modeler Magazine is easy to build, with foam wings, covered with 1/64th inch plywood wing skins, precision balsa shaped parts and a Dura-lene fuselage. The kit comes complete with everything except adhesives and covering.

The Coyote will perform in light, 6 to 8 mph breeze or in 40 mph winds, without any change in ballast, due to the specially modified NACA 2412 airfoil. The speed envelope is outstanding and you will truly enjoy doing inside/outside loops, Cuban eights, split S, axle rolls, barrel rolls, inverted flight, highspeed passes or whatever you want. The simple two channel operation (elevators and ailerons) is easy to fly, but the performance is unsurpassed.

Everyone claims their planes are "America's finest" or "Best" and we are no exception. However no-one in the world can offer you a kit that is as strong and durable as our Coyote. That is because only Bob Martin RC Models have Dura-lene, the space age polyolefin that is so strong, we GUARANTEE it UNBREAKABLE for one year. Why settle for less, look for the Dura-lene name and you will know you are getting the best.



This unique design is the result of continued research in airfoils and wing platform designs. The low aspect ratio design teamed up with the new airfoil, and wing loading has exhibited remarkable qualities that even surpass our original expectations.

The SR-7 was not and is not designed for the novice flyer. It is an extremely fast aircraft, due to the clean frontal area and thin airfoil, but transcends previous ideas about fast aircraft needing extreme lift conditions in order to stay aloft. The SR-7 will also fly remarkably slow, and in 8 to 10 mph breeze will do just about anything you can think of. The axial rolls are so crisp and smooth, that little if any speed or altitude is lost, even at slow speeds.

We feel that the SR-7 is the ultimate kit for the aggressive slope enthusiast. If you wish to be a leader in your area, be the first to own an SR-7. Kits will be available in June, 1979 at better hobby stores everywhere.

The SR-7 comes with a Dura-lene Fuselage, foam wing cores, 1/64th plywood wing skins, balsa parts, canopy, and complete hardware package.

Specs:  
Fuselage Length..... 41 inches  
Wing Span ..... 54 inches  
Empty Weight ..... 28 ounces

### Katie II



Wingspan: 72 inches

This fine kit comes complete with Dura-lene fuselage, with servo and receiver cavities for easy radio installation, foam wings, balsa wing sheeting, shaped balsa tail-group parts, hardware package and canopy.

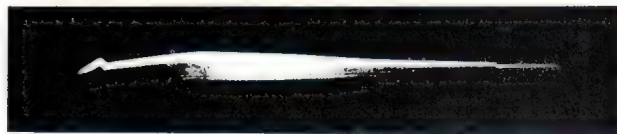
Designed especially for the flyers who wish to advance into aileron operation. Call it a trainer or transition aircraft if you wish, but the Katie II is a real performer too! Gentle and stable in all air this aircraft will fly with most two meter planes, but will remain controllable in heavier air. The simple design, flat bottom airfoil, easy and quick assembly, makes the Katie II the perfect fun aircraft, and the only true aileron trainer available nationwide.



Wanderer/Soar Birdi replacement fuselage.



Aquila replacement fuselage.



Oly II/Paragon replacement fuselage.

Because of the time and pride that go into building glider kits, and sometimes the unfortunate early demise of the fuselage, Bob Martin RC Models is offering guaranteed Dura-lene replacements for some of the more popular kits.

The fuselages now available are the Aquila replacement (also fits Grande), the Wanderer replacement (also fits Soar Birdi, and similar 7" to 8" wing cords), and the Oly II/Paragon (also fits similar 10" wing cords). The latter replacement fuselage does not duplicate their namesakes, but is an original design that compliments the wing and tail group designs. The fuselages all make excellent replacements for many aircraft, and are ideal for you to experiment with, using your own designs of wings and tail groups. All fuselages are between 11 and 10 ounces, and are the strongest available for the weight.

MTN71C00	BOB MARTIN COYOTE SAILPLANE	84.95	63.95	136
MTN71100	BOB MARTIN KATIE II SAILPLANE	59.95	47.95	136
MTN71200	BOB MARTIN SR-7 SAILPLANE	59.95	79.95	136
MTN71300	BOB MARTIN CIRRUS	149.95	119.95	137
MTN75C00	DURALENE FUSELAGE FOR WANDERER	29.95	23.95	136
MTN75C10	DURALENE FUSELAGE FOR AQUILA	29.95	23.95	136
MTN75C20	MARTIN FUSELAGE-OLY II, PARAGON	29.95	25.45	136



## BOB MARTIN

*New!*

## CIRRUS 75L



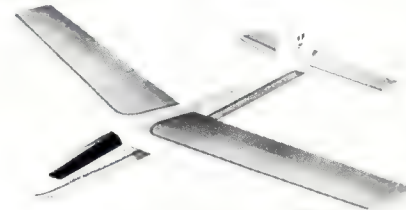
This Cirrus 75L is the only near scale RC model of the world's most popular sailplane. The fuselage was scaled from factory drawings and great care was taken to maintain the closest possible authenticity. This beautiful scale sailplane is a tremendous performer too! Test flights on the Cirrus have been extremely successful, and competition in contests across the country will undoubtedly bring this RC version the same recognition that made its namesake No.1 in the world. There is nothing as graceful as a sleek sailplane silently gliding around the sky, and performing the maneuvers you command. This kit comes with a duralene fuselage, foam wing and stab cores, balsa wing and stab sheeting, formed plastic canopy, hardware package, complete instruction booklet, plans for up to 5 functions including retractable belly wheel. Building time is as little as 10 hours.

## MIDWEST



### LIL "T" GLIDER

The Lil "T" is a 74" wingspan all balsa glider that features table top construction to prevent misalignment. The model is a West Coast glider for slope soaring, tow line, high start, and power pod use. Die cut balsa, all hardware, and instructions.



### SILENT SQUIRE

This 58" wing span slope soarer is highly maneuverable and aerobatic. Stable on hi-start or winch launches and will thermal soar under suitable conditions. Kit contains die cut balsa and plywood parts, clear canopy, foam wings, all hardware, and illustrated plans with pictorial instructions.

MID71121	MIDWEST #121 LIL "T" GLIDER	29.95	22.45	137
MID71132	MIDWEST #132 SILENT SQUIRE	47.95	35.95	137

## MRC

## MRC Young Star foam glider kit

Two Channel, foam glider, stand off scale



- 31" fuselage, 63" wingspan
- Complete with motor pylon for .049 engine (engine not supplied)
- Pushrods, decals, canopy and all other hardware supplied for ease of construction
- Rugged landing wheel and skid provided
- Tow line hooks in landing skid provided

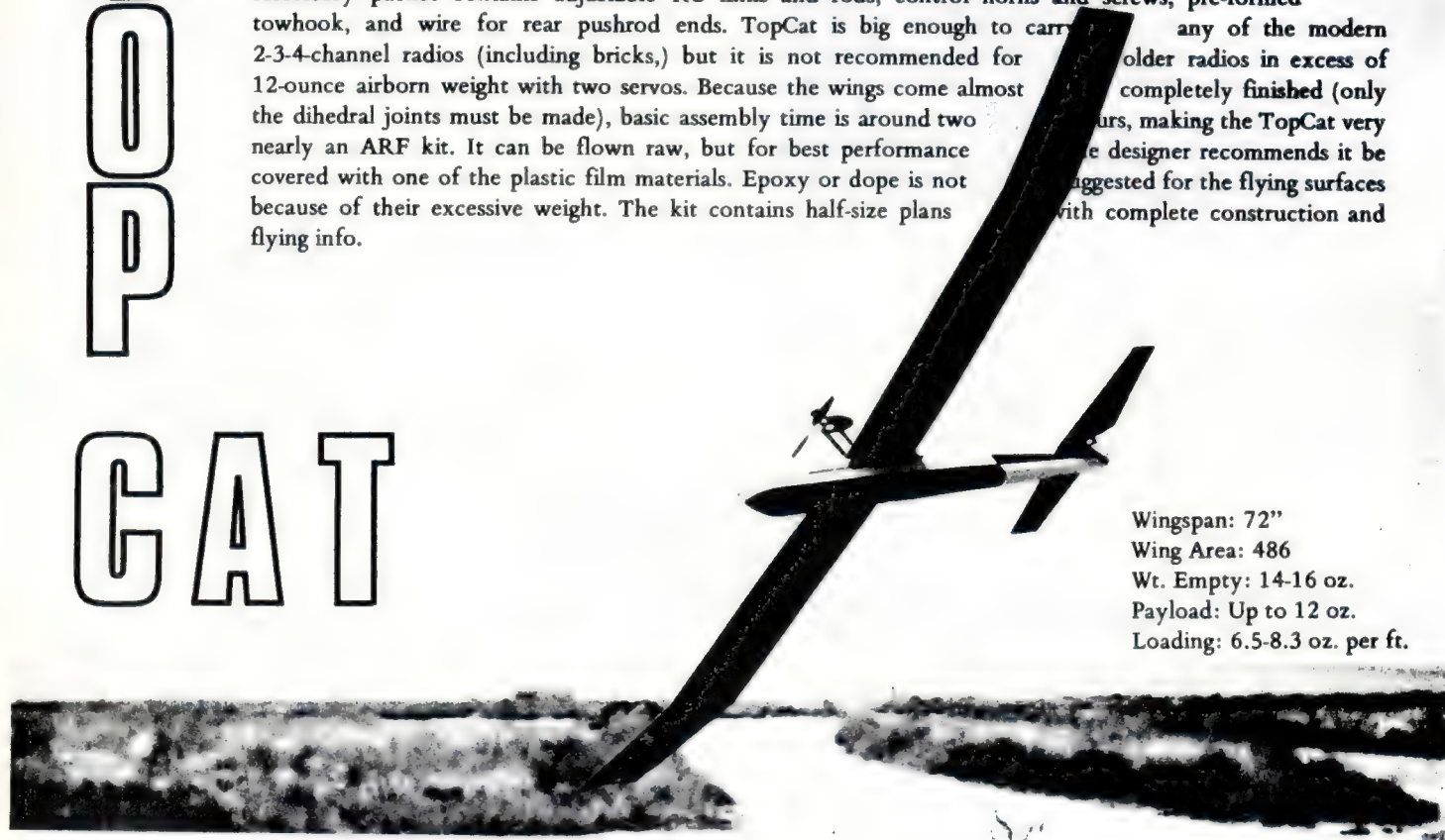
MRC71100	MRC ARF YOUNGSTAR FOAM GLIDER	49.95	38.95	137
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## SOUTHWESTERN

# TOP CAT

A high-performance sailplane in the two-meter class. Launch with twoline, hi-start or winch for thermal flying. Fast and maneuverable on the slope, or can be flown power-assist with an .049 engine. Construction is all sheet balsa, with some plywood reinforcing. Wings utilize the high-lift Benedict airfoil from Europe, and come in two 3' panels, completely shaped and hand-sanded and ready for covering (if desired.) Fuselage is box construction, with all parts machine-shaped for rapid assembly. Accessory packet contains adjustable RC links and rods, control horns and screws, pre-formed towhook, and wire for rear pushrod ends. TopCat is big enough to carry any of the modern 2-3-4-channel radios (including bricks,) but it is not recommended for older radios in excess of 12-ounce airborne weight with two servos. Because the wings come almost completely finished (only the dihedral joints must be made), basic assembly time is around two hours, making the TopCat very easy to build. The designer recommends it be covered with one of the plastic film materials. Epoxy or dope is not suggested for the flying surfaces because of their excessive weight. The kit contains half-size plans with complete construction and flying info.



Wingspan: 72"  
Wing Area: 486  
Wt. Empty: 14-16 oz.  
Payload: Up to 12 oz.  
Loading: 6.5-8.3 oz. per ft.

SOL71001 SOUTHWESTERN TOP CAT SAILPLANE 29.95 23.25 138

## NORTH PACIFIC



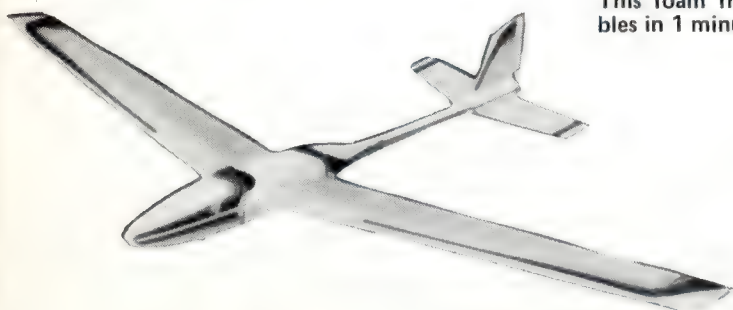
# SAILPLANE

## FREE FLIGHT

high performance  
in the air.....

The special molded TUFFOAM under cambered airfoil wing gives NIMBUS 4 outstanding glide characteristics.

giant **4ft.** wing span



This foam free flight glider assembles in 1 minute. For ages 8 and up.

.....This giant four foot wing span sailplane is capable of over 100 foot high flights everytime! Comes with an exclusive Power Launcher high start for free flight fun.

NCP71C04 NORTH PACIFIC NIMBUS 4 GLIDER 16.95 12.95 138



BOB SMITH

# SeaBreeze

SLOPE AND THERMAL SAILPLANE



## COMPLETELY READY TO FLY

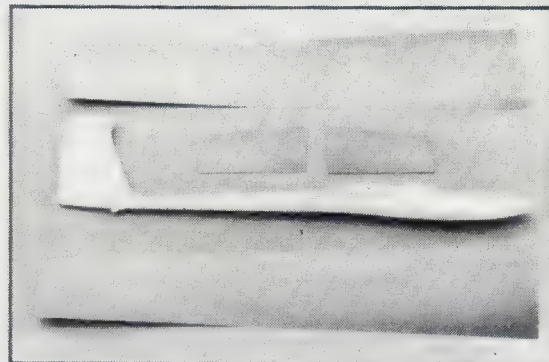
Ideal for beginning flyers, the **Sea Breeze** is designed for the modeler who wants the best available sailplane but hasn't the time or ability to build one.

Utilizing the most advanced lay-up technics along with our molded process and efficient airfoils, the Sea Breeze

is strong, maneuverable, and easy to fly.

Epoxy fiberglass fuselage complete with push rods installed, fully painted in white. Wings and stabilizer molded from epoxy fiberglass available in choice of six colors, (red, blue, orange, brown, yellow or white).

Just install your radio and go fly!



(Patent No. 3,873,654)

### SPECIFICATIONS:

Wing—99.75" wing span

Area 760 sq./in., 12.7 Aspect Ratio

Root Airfoil Eppler 385 Mod 2

Tip Airfoil Johnson 16 with 3° washout

Stabilizer—120 sq./in.

Total weight less radio 40 oz.

SMT71000 SMITH RTF SEABREEZE-PAINTED  
SMT71010 SMITH RTF SEABREEZE-UNPAINTED

229.95 195.00 139  
169.95 144.45 139

# BOB SMITH

## R/C AIRCRAFT

485 EASY ST. SIMI VALLEY, CA 93065 (805) 527-4004



## MODEL BOAT KITS

A part of the radio-control hobby are model boat activities. Because in the last few years many people new to R/C are starting out with boats, R/C boating has grown tremendously.

There are many reasons for this growth. Boats tend to cost less than most planes, at least at the entry level. They are easier to learn to operate and they do not crash with as much damage as do planes. In fact, if you like crashes, boats will probably be boring. But if you like open water with a powerful racing machine, a beautiful cabin cruiser, a stately sailboat, or other scale model then look into R/C boats.

Along with the increased growth in boat kits is the increased growth in boat accessories and hardware. There are a larger number of hardware items on the market for boats than ever before and these products are readily available.

Let's look at the types of boats available:

### SAILBOATS

The sailboat is the glider of the boating world. It gets its power from the force of the wind. The large sails catch the wind and direct the boat so that it will move forward. In fact, the sails in R/C boats are adjustable allowing the boat to move in the same manner as a real sailboat. You can go as close to the wind as 45° off the wind direction. This is known as "close-hauled".

There are many sailboats on the market and we handle the most popular models. The Dumas line is the most popular one. Their boats run from the 30" Star to the larger 50" Bingo and Etchells. If the larger boats don't sound very large, just remember that the mast is over 80" (6'8") tall!

Cox Hobbies has their ready-to-sail Tradewinds and a pretty boat it is! It is even legal for racing in the AMYA 36/600 racing class.

### RACING HULLS

There are three main types of racing hulls: three-point hydro, tunnel-hull hydros, and V-hull boats. Let's look at them one at a time.

Three-point hydros: These are the typical racing hydroplanes that people think of when they consider racing boats. Along either side of the boat there are two long hulls which stop about half-way down the hull. The stern of the boat is farther aft. When the boat is moving, it rests upon the rear of the two side hulls, called "sponsons" and the stern of the boat. Three points of the boat are in the water, thus the source of the name. Examples are the Dumas Pay-N-Pak, Atlas Van Lines U-1 (and U-76), and other similar boats.

A variant of the three-point design is the outrigger hydro. This boat has the sponsons connected to the main hull by only a few supports, instead of a large deck area. The Hughey boats are good examples.

Tunnel-hulls: The tunnel-hull is a development of the three-point design. The sponsons are extended aft until they are parallel with the end of the transom. The boat now rides upon two long sections similar to a catamaran. The effect is that the hull is supported partially by a cushion of air trapped beneath the boat, and helps the boat move faster by requiring less hull for flotation.

You'll find that the tunnel-hull boats are used only with out-board engines. This is because there is no place on which to mount the required running hardware. The transom does not enter water while the boat is running, only when the boat slows down to dock. The Dumas Hotshot and Muck's Lil Lightning are examples of the tunnel-hull.

V-Hulls: These are models of the famous "Cigarette" off-shore racing boats. The V-hulls are exactly that. Their shape is that of a "V." They are monohull boats and the angle of the "V" is usually 150° or less included angle. They are noted for their ability to cut through rough water so that the speed of the boat is maintained. Examples of this type are the Dumas "Deep V" series and the Prather "Deep V's".

Finally there are scale boats. The scale boat, just like a scale airplane is a replica of an actual full-size boat. The greater the skill of the builder, the more the model resembles the original. There are scale boats that are so detailed that a photograph taken from the right angle would cause people to wonder if it were a picture of the real thing! We carry the Dumas line of scale boats. There are enough for every taste. With a little imagination and some work, you can make one of these fit for any maritime museum.

### HARDWARE

The running hardware of the boat is a mystery to the novice. The boat has some strange things going on below the water that you really don't think about when you watch boats running at the lake.

The power produced by the engine is transferred to the propeller by a drive shaft. This drive shaft must exit the hull into the water forward of the transom because the propeller is just forward of the transom under the hull.

Beneath the hull, there are additional fittings. The stub supports the drive shaft where the propeller is mounted. This insures that the propeller has a solid mounting. The stub also absorbs the thrust force of the propeller and transfers the force to the boat.

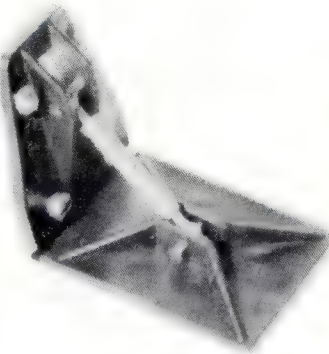
Also beneath the hull is the rudder. This is immediately behind the propeller in the propwash. The rudder of course, steers the boat. Also in the propwash is the water pick-up tube. Water expelled by the propeller is caught by the tube and routed through the water jacket in the engine. This water is then expelled overboard.

In addition to solid shaft drive, some boats use a flexible out-drive. This system has the propeller and rudder mounted behind the boat and is commonly seen on racing deep vees. Power is transferred from the engine to the propeller by a flexible cable which exits through the bottom of the boat. The flexible cable eliminates the use of U-joints beneath the surface of the water.



# AEROMARINE

## TRIM TAB



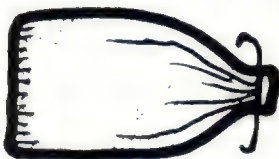
This plastic, fully-adjustable trim tab fits on the transom of Deep Vee and SK boats. One package includes two trim tabs, mounting hardware and brass turnbuckles.

## STUFFING BOX



This is the ultimate flex cable stuffing box. The tube is made of brass, for strength, and is lined inside with a thin teflon tube for low friction. The Aeromarine Stuffing Box comes 12½ inches long and can be bent to any shape desired. The stuffing box will fit most struts and rudder assemblies on the market. For a long time a product like that has been needed, and we have answered your needs. The Aeromarine Stuffing Box eliminates the problem of cable wear and high friction as with normal brass stuffing boxes. Our Stuffing Box also eliminates the problem of lack of support of the cable drive inside the hull before the engine (this helps prevent the cable from breaking there and stops whipping of the cable that causes vibration) and lack of support between the hull and the strut blade where the cable and stuffing box normally bend due to the high torque and high RPM of the engines. Use an Aeromarine Stuffing Box and leave this problem behind. Our Stuffing Box will provide you with more dependable operation and better life of the cable drive. With the Aeromarine Stuffing Box you can have the strength and the low friction and you will then have the "competitive edge."

## WATER-TRAP



The Aeromarine Water-Trap is a chemical compound that physically attracts and absorbs moisture and water vapor that enters the radio box. This product is designed to insure safer operation of the boat and protect the radio gear from corrosion and failure due to water and moisture damage. Aeromarine's Water-Trap comes in a small cloth bag that can be positioned anywhere in the radio box. Water-Trap will attract and hold approximately ¼ oz. of water. Each bag comes sealed in a poly bag to protect its maximum efficiency to absorb. The chemical compound is blue in color when activated, and as it becomes contaminated with water it will change color. The chemical will lose its blue color, turn somewhat clear and then turn light pink. When the material is pink, it has absorbed all it can. We suggest that the bag be removed and replaced. The bag can also be re-activated by baking it in an oven for 6 to 8 hours at 250 degrees. The compound will turn blue and can be re-used. Aeromarine's Water-Trap is designed to keep the radio box and its electronic equipment free from damage caused by condensation and moisture. This product will protect the receiver, battery and servo's from water damage. Never before has there been such a small inexpensive product that can do so much for your boat and its equipment. Pick up your Water-Trap today and protect yourself and your equipment and eliminate a potential hazard.

AEM20830	AEROMARINE 830 WATER TRAP	2.50	2.40	141
AEM20831	AEROMARINE 831 STUFFING BOX	6.00	5.40	141
AEM20833	AEROMARINE 833 TRIM TABS	9.95	8.95	141
AEM20851	AEROMARINE 851 EASY BAILER	3.50	3.30	141

## "EASY BAILER"

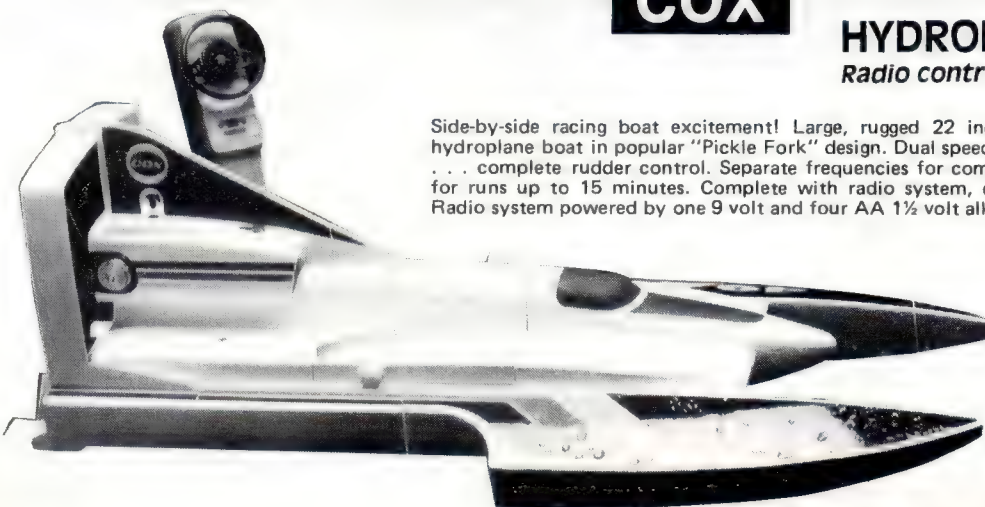


Easy Bailer is a simple valve that is small and light, but does a big job. It is very easy to install, and works automatically and requires no maintenance. Easy Bailer automatically removes unwanted water from your boat without letting water in. It automatically closes itself when water from the outside tries to enter your boat, but once the boat is moving, Easy Bailer will open and remove all the water from your hull. It has the ability to remove as much as 36 oz. of water per minute. Less water build-up in the boat means more speed, more reliable operation of engine and radio gear, and less oil and water on the flywheel and starting belt. Never before has there been such a small inexpensive product that can do so much for you and your boat and its equipment.

# COX

## HYDROBLASTER

*Radio control fuel powered racing boat.*



Side-by-side racing boat excitement! Large, rugged 22 inch molded hull is unsinkable. Ready-to-run hydroplane boat in popular "Pickle Fork" design. Dual speed throttle control. Fully proportional steering . . . complete rudder control. Separate frequencies for competition racing. Extra-big capacity fuel tank for runs up to 15 minutes. Complete with radio system, engine, factory installed. No license needed. Radio system powered by one 9 volt and four AA 1½ volt alkaline batteries. (Not included).



CCX723CO 2600 HYDROBLASTER W/ENG.&RADIO 121.95 84.95 141



## COX

# Trade Winds

## RADIO CONTROL SAILBOAT



### FEATURES

- Quick-adjust fittings on all shroud lines for quick assembly of riggings.
- Highest quality rip stop nylon sails with battens installed.
- Extruded aluminum mast. Two piece design for ease in transport.
- Aluminum boom with molded fittings for easy rigging adjustments.
- Hi grade metal and plastic fittings provide durability for rough weather sailing.
- All deck fittings are pre-installed to permit quick assembly.
- Pre-molded cavities for receiver and servos permit snap-installation of radio.

*Recommended for use with the Cox/Sanwa 8120 radio system. (not included)*

### New ready-built R/C Sailboat— Uses 2-channel radio.

This superb sailboat is designed for the Sunday Sailor as well as competitive racing. She meets all requirements of the AMYA 36-600 class, and is designed to handle well under all conditions. Easily sailed using one servo for rudder control. For additional performance, we offer an optional sail winch. (see page 221)

### TECHNICAL DATA

LENGTH..... 35.9 inches (913 mm)  
 HEIGHT..... 60.1 inches (1528 mm)  
 BEAM..... 10.0 inches (265 mm)  
 SAIL AREA... 590.5 sq. inches (38.1 dm)  
 WEIGHT..... 9.3 lbs. (4200 gms?)

CCX70601 CCX 900601 TRACWINDS SAILBOAT 169.95 119.95 142



## DUMAS

DUM20060	DUMAS #2004 PITTMAN MOTOR 6V	27.50	21.95	222	DUM23003	#3003 PREP FOR .19-.35 1/8"	.90	.85	154
DUM20012	DUMAS #2005 PITTMAN MOTOR 12V	27.50	21.95	222	DUM23004	#3004 PREP FOR .19-.35 3/16"	.90	.85	154
DUM10006	DUMAS #2006 MOUNTING PLATE 7"	1.30	1.25	154	DUM23005	#3005 POWER PROP FOR .35-.45	3.75	3.45	154
DUM10007	#2007 MOUNTING PLATE 1 3/4"	.90	.85	154	DUM23006	#3006 POWER PROP FOR .35-.45	4.00	3.70	154
DUM10008	#2008 COMPL. COUPLING-1/8 BORE	3.50	3.20	154	DUM23008	#3008 POWER PROP/3 BLADE-RIGHT	6.00	5.40	154
DUM10009	#2009 DRIVING PINION ASSEMBLY	4.00	3.70	154	DUM23009	#3009 POWER PROP/3 BLADE-LEFT	6.00	5.40	154
DUM10010	#2010 GEAR REDUCTION ASSY 1.5-1	4.50	4.15	154	DUM23012	CUMAS #3012 RACING PROP 45-60	5.50	4.95	154
DUM10011	#2011 GEAR REDUCTION ASSY 2-1	4.90	4.50	154	DUM23103	#3103 BRONZE PREP FOR .049-.051	6.00	5.40	154
DUM10012	#2012 GEAR REDUCTION ASSY 3-1	5.00	4.50	154	DUM23105	CUMAS #3105 BRONZE PROP 19-35	8.00	7.20	154
DUM10013	#2013 COUPLING SOCKET ASSY 1/8	1.95	1.85	154	DUM23106	CUMAS #3106 BRONZE PROP 40	10.00	8.85	154
DUM10014	#2014 COUPLING SOCKET ASSY 3/16	1.95	1.85	154	DUM23107	CUMAS #3107 BRONZE PROP 60	10.25	8.95	154
DUM10016	#2016 COMPOUND GEAR SET 6 TO 1	9.00	7.95	154	DUM23112	#3112 2" RIGHT HAND BRONZ PROP	11.50	9.95	154
DUM10017	#2017 UNIVERSAL SOCKET-1/8BORE	1.30	1.25	154	DUM23113	#3113 2" LEFT HAND BRONZ PROP	11.50	9.95	154
DUM10018	#2018 UNIVERSAL SOCKET-3/16 BR	1.30	1.25	154	DUM23503	#3503 RUDESHAFT/1201,1203,1205	1.90	1.80	143
DUM10019	#2019 COUPLING ROD	.70	.65	154	DUM27003	#7003 TURN FIN FOR SK BOATS	3.00	2.85	143
DUM15022	DUMAS #2022 SPEED CONTRL-6V.	30.00	24.95	222	DUM27008	#7008 WATER INTAKE TUBE 2.5"	2.75	2.60	143
DUM15073	DUMAS #2023 SPEED CONTRL-12V.	30.00	24.95	222	DUM27009	#7009 NEEDLE BEARING FOR 3/16	4.75	4.35	143
DUM20010	DUMAS #2301 HARDWARE-SK1	29.00	23.95	152	DUM27011	#7011 OILITE BEARING FOR 3/16	1.00	.95	143
DUM20050	DUMAS #2306 HARDWARE-AVL1	10.75	9.40	152	DUM27012	#7012 PROP DRIVE DOG FOR 3/16	2.50	2.35	143
DUM20070	DUMAS #2309 HARDWARE-DV20	41.00	32.80	152	DUM27013	#7013 PROP DRIVE DOG-THD 10-32	1.75	1.65	143
DUM20080	DUMAS #2310 HARDWARE-PT109	13.60	12.25	152	DUM27016	#7016 NYLON THRUST WASHER 3/16	.60	.55	143
DUM20090	DUMAS #2311 HARDWARE-TR31, S200	59.00	46.95	152	DUM27017	#7017 LOCKING PROP NUT 10-32	1.00	.95	143
DUM20110	DUMAS #2312 HARDWARE-TU36	65.00	51.95	152	DUM70101	CUMAS #1105 STAR 30 SAILBOAT	55.00	42.65	150
DUM20120	DUMAS #2315 HARDWARE-AVL40	76.00	59.95	152	DUM70102	CUMAS #1106 EQUATION SAILBOAT	172.50	119.95	150
DUM20190	DUMAS #2320 HWRE FOR 1412-1414	52.00	41.60	152	DUM70125	CUMAS #1108 BINGO SAILBOAT	297.00	192.95	150
DUM20220	DUMAS #2321 HARDWARE-DV40, DV60	53.00	42.40	152	DUM70130	CUMAS #1109 ETCHHELLS SAILBOAT	280.00	181.95	150
DUM20230	DUMAS #2322 HARDWARE-PP20	35.00	27.95	152	DUM70132	CUMAS #1113 HUSON 36 SAILBOAT	195.00	136.50	150
DUM20260	DUMAS #2313 HARDWARE-TU24	47.00	37.60	152	DUM70140	CUMAS #1110 LIGHTNING SAILBOAT	25.00	19.95	150
DUM20270	DUMAS #2314 HARDWARE-DV10, SKV10	12.00	10.50	152	DUM70210	CUMAS #1201 US NAVY PT-109	46.00	35.65	149
DUM20273	DUMAS #2317 HWDR DRAGFLY MKII	76.00	59.95	152	DUM70215	DUMAS #1211 DAUNTLESS	84.00	59.95	149
DUM20290	DUMAS #3701 SAIL CONTROL UNIT	62.00	47.95	150	DUM70220	CUMAS #1203 U.S. C.G. LIFEBOAT	70.00	52.50	149
DUM20324	DUMAS #2324 HARDWARE-131561412	48.00	38.40	152	DUM70221	DUMAS #1210 40FT C.G. UTILITY	55.00	42.65	149
DUM20325	DUMAS #2325 60 FLEX OUTRIGER	58.00	46.40	152	DUM70223	CUMAS #1212 44' LIFEBOAT-GLASS	112.00	83.95	147
DUM20326	DUMAS #2326 10 FLEXDRIVE 10-32	19.00	15.95	152	DUM70224	CUMAS #1214 41FT C.G. UTILITY	70.00	49.95	144
DUM20327	DUMAS #2327 10 FLEXDRIVE ENY09	19.00	15.95	152	DUM70225	DUMAS #1204 TUNA CLIPPER	55.00	42.65	149
DUM20328	DUMAS #2328 HARDWARE FOR U-76	56.00	44.80	152	DUM70230	DUMAS #1205 TROJAN CRUISER	73.00	54.75	149
DUM20329	DUMAS #2329 HWDR FOR 40FT USCG	50.00	39.95	152	DUM70231	DUMAS #1213 AMER. ENTERPRISE	85.00	61.65	147
DUM20331	#2331 ELEC. DRIVE/16-20" BOAT	15.00	12.75	152	DUM70235	CUMAS #1206 SHELLEY FOSS 24 IN	50.00	38.75	149
DUM20332	DUMAS #2332 HWDR-DAUNTLESS-A.E.	43.00	34.40	149	DUM70240	DUMAS #1207 SHELLEY FOSS 36 IN	90.00	64.95	149
DUM20333	DUMAS #2333 HARDWARE-LIL RASCAL	25.00	20.65	154	DUM70250	CUMAS #1501 SWAMP BUGGY	37.00	29.60	149
DUM20334	#2334 OUTDRIVE FOR 1410-1412	18.00	15.30	154	DUM70255	DUMAS #1502 LIL SWAMP BUGGY	16.00	13.60	149
DUM20335	#2335 HWDR FOR 1203, 1210, 1212	65.00	51.95	154	DUM70260	CUMAS #1505 BIG SWAMP BUGGY	42.00	29.95	146
DUM20336	#2336 ELEC. HWDR FOR 1411, 1422	13.00	11.35	154	DUM70262	DUMAS #1506 WINDY SWAMP BUGGY	30.00	22.50	144
DUM20337	DUMAS #2337 HWDR FOR 41FT C.G.	60.00	47.95	144	DUM70310	DUMAS #1301 ATLAS VAN LINES	13.00	11.40	148
DUM20338	DUMAS #2338 HWDR-DV CRUISER	30.00	23.95	144	DUM70315	DUMAS #1304 ATLAS VAN LINE U71	65.00	48.75	148
DUM22000	DUMAS #3601 CQCL CLAMP-COX 049	4.50	4.15	151	DUM70318	CUMAS #1312 AVL U-76 HYCRD	59.00	43.95	146
DUM22001	#2501 FLYWHEEL 1/8" FOR .049	2.50	2.40	154	DUM70319	DUMAS #1314 ATLAS VAN LINE U-1	60.00	44.95	145
DUM22503	#2503 FLYWHEEL 1/4" FOR .19	4.00	3.70	154	DUM70320	DUMAS #1310 PAY'N PAK	45.00	34.85	148
DUM22504	#2504 FLYWHEEL 1/4" FOR 29-35	6.50	5.85	154	DUM70325	DUMAS #1401 SK-DADDLE .35	49.00	37.95	148
DUM22505	#2505 FLYWL W/1/4 COLLET 35-45	8.00	7.20	154	DUM70326	DUMAS #1316 QUICKIE 40 CUTRIGR	45.00	34.85	147
DUM22509	#2509 FLYWL W/1/4 COLLET 50-65	9.00	7.95	154	DUM70327	DUMAS #1317 LIL RASCAL	28.00	22.95	147
DUM22513	#2513 COLLET 1/4"	2.35	2.25	154	DUM70330	DUMAS #1410 V-BOTTOM SK10 BOAT	19.00	15.95	148
DUM22604	#2604 SHAFT&STUFF.BOX 1/8X10.5	3.25	3.00	154	DUM70340	DUMAS #1411 DEEP VEE 10 MAHOG	14.00	10.95	148
DUM22702	#2702 SHAFT ONLY-3/16X16"	6.50	5.85	154	DUM70341	DUMAS #1422 DEEP VEE 10-GLASS	25.00	19.95	146
DUM22704	#2704 SHAFT ONLY-3/16X24"	7.50	6.75	154	DUM70345	DUMAS #1412 DEEP VEE 20 WOOD	36.00	28.80	148
DUM22705	#2705 SHAFT ONLY-3/16X18"	6.50	5.85	154	DUM70350	DUMAS #1413 DEEP VEE 40 WOOD	56.00	39.95	148
DUM22709	#2709 FLEXCABLESHAFT FOR 2321	6.75	6.10	154	DUM70355	DUMAS #1414 DEEP VEE 60 WOOD	78.00	58.50	148
DUM22710	#2710 FLEXCABLESHAFT FOR 2325	8.00	7.20	154	DUM70360	CUMAS #1418 COMP. DV20 GLASS	92.00	66.75	148
DUM22808	#2808 14" TEFLON TUBE FOR2321	4.00	3.70	154	DUM70365	CUMAS #1419 COMP. DV40 GLASS	110.00	76.95	148
DUM22809	#2809 14" TEFLON TUBE FOR2325	5.00	4.60	154	DUM70370	CUMAS #1420 COMP. DV60 GLASS	115.00	79.95	148
DUM22911	#2911 1/4-28 STEEL U-JOINT	6.00	5.40	154	DUM70371	DUMAS #1421 COMP DEEP VEE 21	52.00	39.95	145
DUM22915	#2915 1/4-28 ENG.COUPLING .150	4.50	4.15	154	DUM70373	CUMAS #1423 DV CABIN CRUISER	95.00	68.95	144
DUM22923	#2923 1/4-28 ENG.COUPLING .187	4.50	4.15	154	DUM70400	DUMAS #1311 HOT SHOT TUNNELHUL	37.00	26.95	146
DUM23001	#3001 PROP FOR .049 1/8"	.70	.65	154	DUM70401	DUMAS #1315 DRAG N FLY 20 MKII	47.00	36.45	145
DUM23002	#3002 PROP FOR .09 1/8"	.80	.75	154	DUM70413	DUMAS #1313 HOT SHOT 21 GLASS	80.00	55.95	145

SEE THE NEXT TEN PAGES FOR PICTURES  
AND DESCRIPTIONS OF THE MOST POPULAR  
DUMAS PRODUCTS.

KIT NO.	SAILBOATS	LENGTH
1105	Star Class	30"
1106	Equation 36/600 Fiberglass	36"
1108	Bingo 50/800 Fiberglass	50"
1109	Etchells 22 50/800 Fiberglass	50"
1110	Lightning	19"
1113	Huson 36/600 Fiberglass	36"
KIT NO.	SCALE AND SEMI-SCALE MODELS	LENGTH
1201	US Navy PT-109	33"
1203	US Coast Guard Lifeboat	33"
1204	Tuna Clipper	37"
1205	Trojan Cruiser	31"
1206	Little Shelley Foss	24"
1207	Shelley Foss	36"
1210	Coast Guard 40' Utility Boat	35"
1211	Dauntless	49 1/2"
1212	USCG 44' Lifeboat Fiberglass	33"
1213	American Enterprise	52"
KIT NO.	AIR BOATS	
1501	Swamp Buggy	28"
1502	Li'l Swamp Buggy	18"
1505	Big Swamp Buggy	31"

KIT NO.	HYDROPLANE MODELS	LENGTH
1304	Atlas Van Lines U-71	36"
1310	Pay'n Pak	30"
1311	Hot Shot Tunnel Hull	24"
1313	Hot Shot 21 Fiberglass	27"
1315	Drag'n Fly 20 Mark II	28"
1316	Quickie 40	30"
1317	Li'l Rascal	22"

KIT NO.	SK BOATS AND DEEP VEE MODELS	LENGTH
1401	SK-Daddle	36"
1410	Vee Bottom SK Boat	18"
1411	Short Stuff DV-10 Mahogany	18"
1412	Deep Vee 20 Plywood	24"
1413	Deep Vee 40 Plywood	32"
1414	Deep Vee 60 Plywood	38"
1418	Competition Deep Vee 20 Fiberglass	30"
1419	Competition Deep Vee 40 Fiberglass	40"
1420	Competition Deep Vee 60 Fiberglass	45"
1421	Competition Deep Vee 21 Wood	30"
1422	Short Stuff DV-10 Fiberglass	18"



## DUMAS

### BOATS FOR '80 FROM DUMAS

## THE MODEL BOAT PEOPLE®

# *dumas boats*



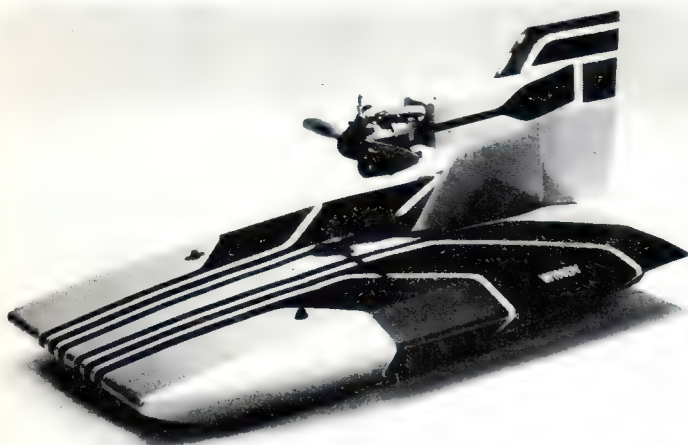
Official USCG photo

### USCG 41' UTILITY BOAT

A scale model  $\frac{3}{4}$ " = 1' of the new "V" bottom utility boat of the US Coast Guard. All die cut plywood construction for electric power and radio control. Twin propellers. Length 31", beam 10". Use hardware kit #2337. Hardware, engine and radio not included.

**Kit #1214**

**HARDWARE KIT NO. 2337** - For 41' USCG Utility Kit No. 1214 with twin propellers. Included 2" dia., 3 blade bronze propellers (R&L), stainless steel shafts, struts and stuffing boxes with oilite bearings, rudders, rudder arms and misc. hardware.



### WINDY

A new Swamp Buggy to join the line of Dumas air prop boats. For running with .10 cu. in. engine to cut fuel costs and still have fun. For radio control. Length 23", beam 12". Radio and engine not included.

**Kit #1506**



### 24" DEEP VEE CABIN CRUISER

A great boat with a rubber bumper for running with electric power in a swimming pool. Can also be gas powered with .10 to .19 cu. in. engine for running in a small lake. Metal flake deck and cabin top. White fiberglass hull and cabin. Assembled ready to mount motor, hardware and radio. Motor, hardware and radio not included. Length 24", beam 10". Use Hardware kit #2338.

**Kit #1423**

**HARDWARE KIT NO. 2338** - For 24" Deep Vee Cabin Cruiser with single propeller. Includes  $1\frac{1}{4}$ " dia., 3 blade bronze propeller, stainless shaft, strut and stuffing box with oilite bearings, rudder, rudder shaft and rudder arm. Engine coupling for gas engine not included.



**DUMAS**

**SEE PAGES 152 AND 153 FOR PARTS REQUIRED (IN ADDITION TO THE HARDWARE PACKAGE) TO COMPLETE EACH KIT.**

**Hot Shot 21**

A larger HOT SHOT TUNNEL HULL with a pickle fork bow. Longer and wider and more stable. A fun boat that's very competitive. For a 3.5 cc outboard. An easy-to-build fiberglass kit. Bolt on the engine, install a radio (2 channel) and go!  
Length 27" (69 cm) Beam 14" (36 cm)

KIT #1313

Engine and radio not included



**Atlas Van Lines U-1**

If Hydros turn you on, here's the latest. A miniature of the new Atlas Van Lines Unlimited Hydroplane driven by Bill Muncey. For radio-controlled racing in the Sportsman class with you driving! A birch and mahogany plywood construction kit.  
Length 36" (91 cm) Beam 16" (41 cm)  
Use hardware kit #2328.

KIT #1314

Engine, radio and running hardware not included.



**The Drag'n Fly 20  
Mark II**

More fun with the Drag'n Fly 20, modified for the 3.5 cc outboard. Complete with material for the cowl and instructions for pickle forking the bow if you wish. Can also be run with an inboard 3.5 cc engine with #2317 hardware.  
Length 28" (71 cm) Beam (36 cm)

KIT #1315

Engine, radio and running hardware not included.



**Competition Deep Vee 21**

Another Deep Vee for the Dumas Fleet! Designed for racing with a 3.5 cc engine to handle rougher water than the Competition Deep Vee 20. A mahogany and birch plywood construction kit. Use outdrive kit #2321.  
Length 30" (76 cm) Beam 11" (28 cm)

KIT #1421

Engine, radio and running hardware not included.





## DUMAS



### "Short Stuff" in fiberglass

Now The Deep Vee 10 "Short Stuff" in fiberglass. Easy to assemble fiberglass hull and deck. Install engine, hardware and radio and go running. Use running hardware kit #2314 for .049 engine or kit #2326, 2327 or 2334, depending on the .10 engine used.

Kit #1422

*Engines, radio and running hardware not included.*



## IMPORTANT!

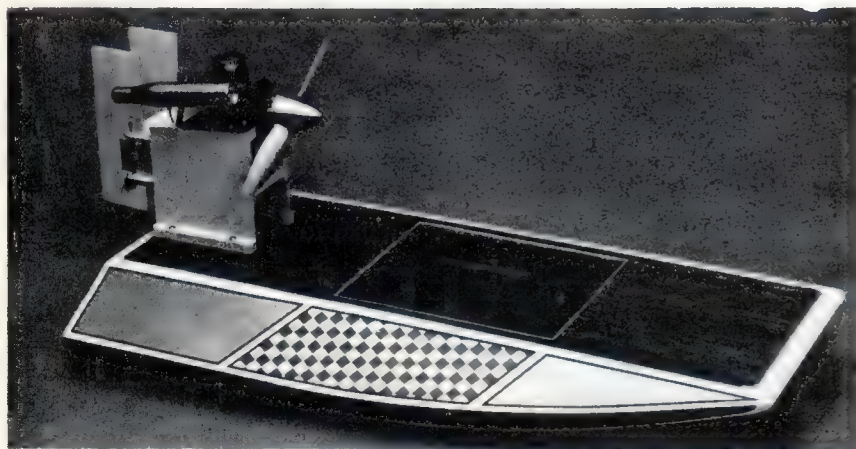
PRICES FOR ALL DUMAS ITEMS ARE LISTED ON PAGE 143.

### Hot Shot

Get on the water quick with HOT SHOT, the Little Tunnel Hull for the 3.5cc outboard — easy to build, bolt on engine, install radio (2 channel), and go racing. Birch and mahogany plywood construction kit. Turn fin included. Length 24" (61 cm) Beam 12" (30.5 cm)

KIT #1311

*Engine and radio not included*



### Big Swamp Buggy

Flyers — get into model boating the easy way with the BIG SWAMP BUGGY — run your .40 or .60 engine and prop. Start it as you do an airplane and have yourself a ball — even run it up on shore. Rugged and stable. Length 31" (78 cm) Beam 17.5" (44 cm) Mahogany and birch plywood construction kit.

KIT #1505

*Engine and radio not included*



### Atlas Van Lines U-76

The 1976 Unlimited Hydroplane National Champion — Atlas Van Lines U-76, driven by Bill Muncy, the top unlimited driver of all times — now in kit form for you to build. For all-out competition in the Sportsman Class or to run for fun. Length 36" (91 cm) Beam 18" (46 cm). Use hardware kit #2328.

Birch and mahogany plywood construction kit.

KIT #1312

*Engine, radio and running hardware not included*

**dumas  
boats**



## DUMAS



Photo by Halter Marine, Inc.

### AMERICAN ENTERPRISE

A high speed crew boat for taking crews to off shore drilling rigs. Designed and built by Halter Marine, Inc. This is an all pre-cut plywood boat kit with deck hardware included. For radio controlled operation with gas or electric power. For twin propellers, use running hardware kit #2332. 52" long, 12" beam.

Kit #1213

*Engines, radio and running hardware not included.*

*Two Quickie outrigger radio controlled hydroplanes. Easy to build and get on the water fast! Plywood and foam kits. For fun running or racing.*

**Quickie 40** can be run with front rotor 40 engine, 3.5cc, 6.5cc or 7.5cc engine. Length 30". Beam 18½". For 40 engine and 3.5cc use hardware kit #2321. For 6.5cc and 7.5cc engine use hardware kit #2325.

Kit #1316

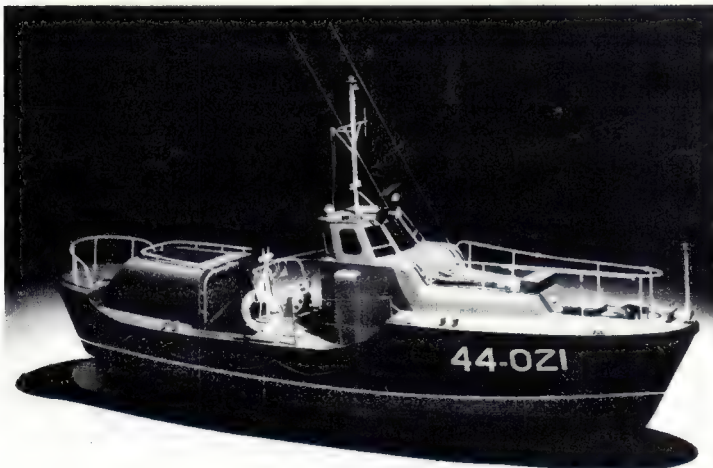
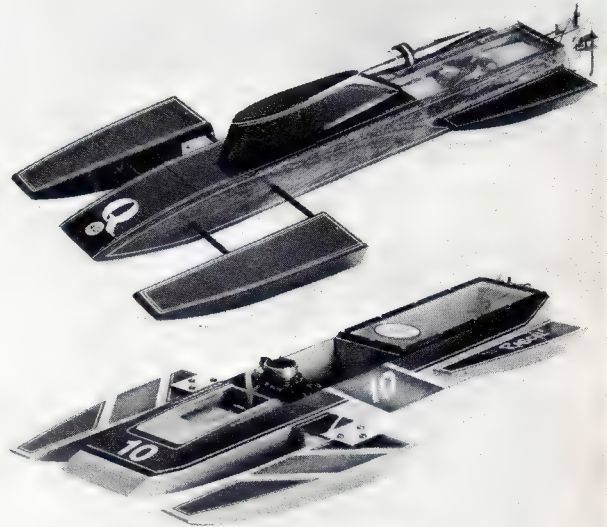
*Engines, radio and running hardware not included.*

### Li'l Rascal

The outrigger for a .10 size engine. Lots of fun on a minimum budget. Runs like the big outriggers—not as fast, but it really goes! Plywood and foam kit. Length 22½". Beam 13". Use hardware kit #2333.

Kit #1317

*Engines, radio and running hardware not included.*



### USCG 44' LIFEBOAT

Fiberglass hull and plywood deck and cabin. Can also be built as The Royal National Lifeboat Institute Waveney Class Lifeboat. For radio controlled operation. Uses running hardware kit #2311. Length 33".

Kit #1212

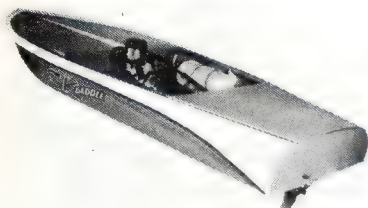
*Engines, radio and running hardware not included.*

New, improved speed control for Dumas electric motors. Provides servo operated variable speeds forward and reverse with center 'off'. Available for 12 v. motors, no. 2023; and 6 v. motors, no. 2022. See page 230 for details.



# MODEL BOAT KITS

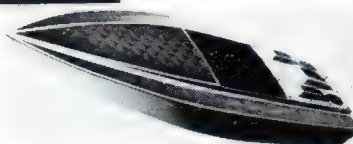
## DUMAS



**SK-DADDLE #DUM70325**  
Length: 36" Beam: 14"  
A hot running model of the Hallet SK boat for full bore racing. Comes with all pre-cut parts and features birch plywood construction.



**DEEP VEE 20 #DUM70345**  
Length 24" Beam 8"  
This small but speedy racer is all wood, rugged enough to take the bumps. Enough room for easy installation.



**DEEP VEE 40 #DUM70350**  
Length 32" Beam 11"  
Made of mahogany and birch plywood. Can accommodate a .29 to .45.



**DEEP VEE 60 #DUM70355**  
Length 38" Beam 14"  
Engine .40 to .80  
This one can really take the rough water. Mahogany and birch.



**DEEP VEE 20CF #DUM70360**  
Length 30"  
Engine .20

**DEEP VEE 40CF #DUM70365**  
Length 40"  
Engine .40

**DEEP VEE 60CF #DUM70370**  
Length 45"  
Engine .60

These fiberglass Deep Vee's are for serious competition. The hull and deck are white so they can be prototypically painted. The ultimate in Dumas racing boats.



**ATLAS VAN LINES**  
Length 18"

**#DUM70310**  
Engine .049

**ATLAS VAN LINES 40**  
Length 36"

**#DUM70315**  
Engine .40

Both are scale models of the famous unlimited hydro. Mahogany and birch.

### Outdrive for DV-10 and SKV-10

Make a little racing boat out of your DV-10 or SKV-10 with the new flex cable outdrive for .09 and .10 marine engines. Complete hardware kits

Kit for .10 engine with 3/16" shaft and 10-32 threads (similar to OS MAX 10) KIT #2326

Kit for .09 engine with 5mm shaft and 5mm threads (similar to Enya .09) KIT #2327

### Heavy Duty Outdrive

for 60 and 65 engines using 3/16" flex cable Prop. engine coupling and fly-wheel not included  
KIT #2325



**SKE VEE 10 #DUM70330**  
Length 18" Beam 7"  
Engine .049-.051

A little Deep Vee Bottom Ski Boat for fun or racing with RC. Unassembled mahogany and birch kit.



**DEEP VEE 10 #DUM70340**  
Length 18" Beam 6"  
Engine .049

Inexpensive fun with this small Deep Vee. Runs like the big ones in rough or smooth water. Mahogany, plywood and veneer.



SEE PAGE 143 FOR DUMAS PRICES

SEE PAGES 152 AND 153 FOR PARTS REQUIRED (IN ADDITION TO THE HARDWARE PKG.) TO COMPLETE EACH KIT.

#### BOAT KITS

ATLAS VAN LINES  
ATLAS VAN LINES 40  
DEEP VEE 10  
DEEP VEE 20  
DEEP VEE 40  
DEEP VEE 60  
DEEP VEE 20 CF  
DEEP VEE 40 CF  
DEEP VEE 60 CF  
PAY 'n PAK  
SK-DADDLE  
SKE VEE 10

#### REQUIRED HARDWARE PKG.

2306  
2315  
2314, 2326, 2327, or 2331  
2309, 2320, or 2324  
2320 or 2321  
2320 or 2325  
2324 or 2321  
2321  
2325  
2322  
2301  
2314, 2326, or 2327

### PAY 'n PAK

Length 30" Beam 15" Engine .20  
A standoff scale model of the national unlimited hydro-plane champion. Rugged plywood construction.

**#DUM70320**



## DUMAS



**PT109**  
Length 33"  
Engine .19 or electric

**#DUM70210**  
Beam 9"

Put some history in your modeling! Die cut mahogany plywood. See the accessory section for a choice in hardware packages.



**TROJAN CRUISER**  
**#DUM70230**  
Length 31"

For gas or electric power. All deck hardware included. A beautiful model for RC, free running or display. (Pictured at left).



**U.S. COAST GUARD LIFEBOAT #DUM70220**  
Length 33" Beam 9"  
Engine: Electric  
For the modeler who likes to build. Mahogany plywood frame, 1/8" balsa planking.



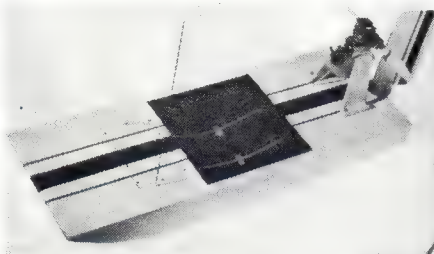
SEE PAGE 143  
FOR DUMAS  
PRICES

**THE TUNA CLIPPER**  
Length 37" Beam 6 1/2"

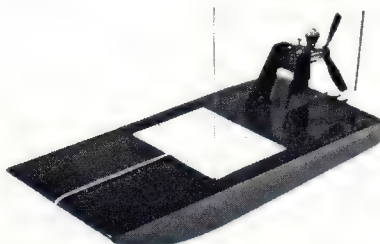
Plywood construction with mahogany planking. Complete with deck hardware. For RC use with single electric motor.



**SHELLEY FOSS TUGBOAT**  
**#DUM70240**  
Length 36" Beam 12"  
Engine: Twin Electric  
**LITTLE SHELLEY FOSS**  
**#DUM70235**  
Length 24"  
Engine: Single Electric  
Both include deck hardware and have mahogany plywood.



**SWAMP BUGGY**  
**#DUM70250**  
Length 28" Beam 10"  
Engine .19  
A fun boat in any kind of water. Run it on ice, snow, through the weeds—anywhere.



**LI'L SWAMP BUGGY**  
**#DUM70255**  
Length 18" Beam 8"  
For free running or radio control. All birch plywood and mahogany. For .049 engine.



**40' U.S. Coast Guard Utility Boat**

A new wood construction kit of the popular 40-foot U.S. COAST GUARD UTILITY BOAT for the scale builder. Die-cut plywood parts, hull is strip planked. Deck hardware is included. (Kit replaces Dumas S-100). Length 35" (89 cm) Beam 10" (25 cm)



**Dauntless**

A real beauty. One of the famous commuter boats used on the Hudson River in New York. Originally run with Packard marine engines, now powered by Diesel engines. Designed by Sparkman and Stephens in 1946. Now you can build your own commuter boat. This is a big boat! Plenty of room for gas or electric power with twin screws. Wood construction kit with deck hardware included. Scale 3/4":1". Length 49 1/2" (126 cm) Beam 14" (36 cm)

SEE PAGES 152 AND 153 FOR PARTS REQUIRED (IN ADDITION TO THE HARDWARE PKG.) TO COMPLETE EACH KIT.

### BOAT KIT

PT 109  
SHELLY FOSS TUGBOAT  
LITTLE SHELLEY FOSS  
DAUNTLESS  
TROJAN CRUISER  
U.S.C.G. LIFE BOAT  
40' U.S.C.G. UTILITY

### REQUIRED HARDWARE PKG.

#2310, flywheel & water pickup  
#2312  
#2313  
#2332  
#2311  
#2311  
#2329



## MODEL BOAT KITS



**BINGO** #DUM70125  
Length 50" Beam 10"  
Sail Area 800 sq.in.

A winner in the 50/800 class. Unassembled fiberglass hull, deck, rudder, and keel. Beautiful dacron sails with a mast of 80 in. Fittings included, but needs sail control unit.



**STAR 30 (shown left)**  
#DUM70110  
Length 30" Beam 8"  
Sail area 430 sq.in.

Kit consists of mahogany plywood frames, with 1/12" planking and deck. Built up spruce mast is 44" high. Ready made sails. Great for 2 channel radio control.

SEE PAGE 143  
FOR DUMAS  
PRICES

### Huson 36

Here's a model of an ocean racing sailboat. Looks like one of the big ones. Can be raced in the 36/600 class of the American Model Yacht Association, or sailed for fun and relaxation. Hull and deck are white fiberglass for the modeler to join. The kit also includes keel with weight, rudder, dacron sails, wood to shape for mast and boom, and all hardware. Designed for the Dumas-Probar Sail Control unit Length 36" (91 cm) Beam 10" (25.4 cm) Mast 48" (122 cm)

KIT #1113



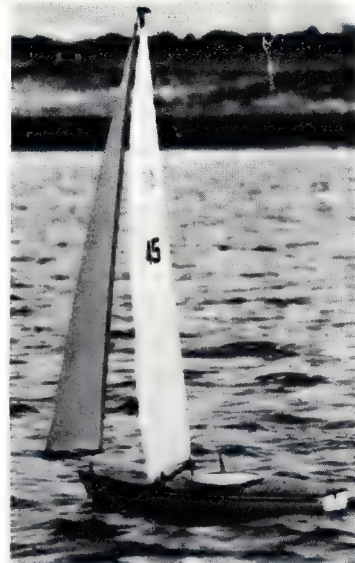
**ETCHHELLS 22** #DUM70130  
Length 50" Beam 10"  
Sail Area 800 sq.in.

A semi-scale model of the popular Etchells 22. A boat for fun or competition in the 50/800 class. All fiberglass and unassembled. Fittings and dacron sails included. Mast measures 62 in.

## DUMAS

**EQUATION (shown rt)**  
#DUM70120  
Length 36" Beam 8"  
Sail area: 600 sq.in.  
Mast 44"

A semi-scale model of the famous ocean racer designed by Bill Barton to race in the 36/600 class. Unassembled, all fiberglass, complete with dacron sails and fittings.



**19' LIGHTNING**  
#DUM70140  
Length 19"

A scale model of the popular lighting class sailboat. Well suited for display or free sailing. Easy to build.



**SAIL CONTROL UNIT**  
#DUM20290  
Length 5.1" Width 2.0"  
Height 2.7"

A single motor-driven arm type unit to adjust position of main and jib sails. Controlled by a single servo. Powered by receiver batteries or by separate 4.8 volt batteries.

This unit can be used on any of the sailboats on this page except the Lightning.



## DUMAS

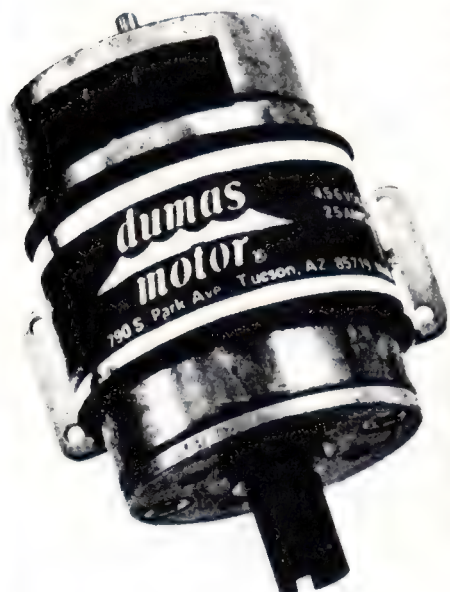
### DUMAS/PITTMAN ELECTRIC MOTORS

Dumas Pittman "Boatmaster" motors are accepted as the standard of the hobby field. Well established as the highest quality model boat motors available, their power and smooth operation is truly superior. Available in both 6 volt and 12 volt DC versions, Dumas/Pittman motors are enclosed in a corrosion resistant metal housing, and are complete with universal coupling for 1/8" shaft.

For throttle control on your electric powered boat use Dumas electric speed controls. See page 230 for details.



**3601** Water cooling clamp to attach around cylinder to convert Cox .049-.051 to marine engine.



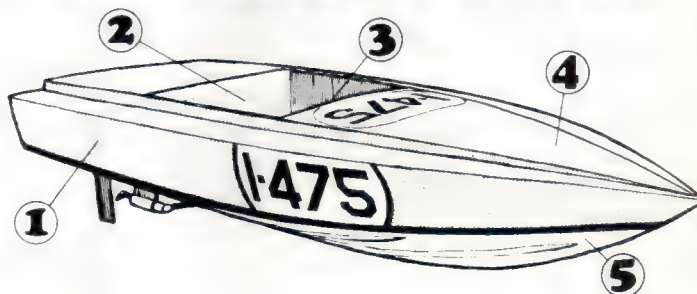
SEE PAGE 143  
FOR DUMAS  
PRICES

The No. 506 motor will operate on three or four size 'D' flashlight cells connected in series, a rechargeable nickel-cadmium battery pack of 4.5 or 6 volts output, or from a miniature 6 volts storage battery. The No. 507 motor is best powered by a nickel-cadmium battery pack of 9 to 12 volts output or a small 12 volt motorcycle type storage battery. Motor may be reversed by interchanging battery leads.

### GENERAL SPECIFICATIONS

- Ceramic Lifetime Magnet
- Stainless Steel Shaft
- Self Aligning, Oil Impregnated Bronze Bearings
- Neoprene Shock Insulated Mounting
- Long Life Copper Graphite Brushes
- Double Insulated Armature Windings, Impregnated and Baked
- Fully Enclosed Corrosion Resistant Metal Housing
- Weight 8 3/4 Ounces

## How to build better boats



**1** Construct wooden hulls with any of the three formulas of Hobbypoxy glue. They're all waterproof, vibration proof and fuel proof. (Not "resistant" ... PROOF!) They are by far the strongest glues you can use on wood-to-wood joints, and will never crack or become brittle.

**2** Install motor mount beams and bulkheads in fiberglass hulls with Hobbypoxy Quick-Prep polyester resin and Easy-Does-It cloth. Quick-Prep is a surfacing and laminating resin, bodied with Cab-o-Sil to make it viscous. It costs only \$5.25 per quart, including catalyst and a polyethylene overcap/mixing container. Easy-Does-It cloth is a Dynel fabric that's as strong as fiberglass, but drapes better, doesn't unravel or fray, and *doesn't itch!*

**3** Vibration-proof all set screws, nuts and bolts with Hobbypoxy glue. This is especially important with engine mounts since heat has an adverse effect on some types of thread-locking compounds.

**4** Seal and surface wooden hulls with Quick-Prep or Hobbypoxy Formula 2 glue. The glue is tougher and more flexible than polyester resin, and adds strength to the structure. Both are perfect bases for Hobbypoxy enamels.

**5** Finish glass or wood boats, inside and out, with Hobbypoxy enamels. Hobbypoxy is the toughest of all epoxy paints, and is virtually impervious to scuffs and scratches caused by beaching and other rough handling. It's completely fuel proof too, and comes in more standard colors than any other epoxy model paint.\*

[Note: Hobbypoxy epoxy glues *will* adhere perfectly and cure normally when applied to polyester resins (fiberglass laminates), but polyester resins will not cure when applied over epoxies. Bear this in mind when building and finishing your boat.]

\*Send for a free color card and we'll throw in a copy of our Hobbypoxy Painting Pointers booklet. Write the word "boat" on your request.

### HOBBYPOXY PRODUCTS

A Division of Pettit Paint Co., Inc.  
40 Pine Street, Rockaway, N.J. 07866



### GAS POWER BOAT RUNNING HARDWARE KITS (Numbers are Dumas Stock Numbers)

HARDWARE PACKAGE	Parts in Kit													
	ENGINE MOUNTING PLATE	SHAFT	STUFFING BOX	STRUT	UNIVERSAL JOINT FOR PARALLEL DRIVE	THRUST WASHER	RUDDER BRACKET	RUDDER & SHAFT	SET COLLAR	WATER PICKUP	RUDDER ARM	TURN FIN	TRIM PLATES	PLASTIC PROPELLER
2301		2606	2802	3301				3501		7006	3504			3004
2302		2604		3314				3502		7006	3504			3003
2303		2604		3314				3502		7006	3504			3003
2305		See Electric Powered Boat Running Hardware												
2306		2603		**				**						3001
2307	3406	2601					+	3502+		7006	3504	7003		3004
2308	3406	2601					+	3502+		7006	3504	7003		3004
2309	3405	2601				7019	3512	3509		7008	3508			3004
2310		2606		3314				3503			3504			3004
2311		See Electric Powered Boat Running Hardware												
2312		See Electric Powered Boat Running Hardware												
2313		See Electric Powered Boat Running Hardware												
2314		2713	**			7019		3517			3504	**	**	3001
2315	3402	2702	2804	3308	2910	7016	3512	3506	(2)7014	7007	3508	7004		
2316	3404	2704	2804	3308	2910	7016	3512	3507	(2)7014	7007	3508	7005		
2317	3405	2702	2804	3302	2910	7016	3512	3509	(2)7014	7008	3508	7004		3004
2318	3401	2702	2806	3304	2910	7016	3512	3511	(2)7014	7008	3508	7003	7001	3010
2319		2702	2806	3306	2910	7016	3512	3511	(2)7014	7008	3508	7003	7001	3012
2320		2702	2806	3310	2910	7016	3512	3506	(2)7014	7007	3508			
2321		2709	2808	3315		(2)7016	**	3506	(2)7014	7007	3508			
2322	3405	2705	2805	3303		(2)7016	3512	3509	(2)7014	7008	3508	7004		3004
2323	3405	2705	2805	3303		(2)7016	3512	3509	(2)7014	7008	3508	7004		3004
2324		2709	2808	3310		(2)7016	3512	3509		7007	3508			3004
2325		2710	2809	3316		(2)7016	**	3506		7007	3508			
2326		2711	2810	**		(1)7019	**	3517	7015	**	3504		**	3002
2327		2711	2810	**		7019	**	3517	7015	**	3504		**	3002
2328	3402	2709	2808	3310		(2)7016	3512	3506	(2)7014	7008	3508	7004		3011
2329		See Electric Powered Boat Running Hardware												
2330		See Electric Powered Boat Running Hardware												
2331		See Electric Powered Boat Running Hardware												

\*\*Included-not stocked separately + Optional outboard Rudder 3513 and Rudder Bracket 3512 \*Octura or Steve Muck Motor Mount

### ELECTRIC POWER BOAT RUNNING HARDWARE

	Included in Kit							
	SHAFT & STUFFING BOX	STRUT	RUDDER & SHAFT	RUDDER ARM	PROPELLER	DRIVE COUPLING SOCKET ASSY.	MOUNTING PLATE	DRIVING GEAR
2305	2603		3517	3504	3001			
2310	2606	3314	3503	3504	3004			
2311	(2)2604	(2)3314	(2)3503	(1)3515 (1)3504	(2)3003	(2)2013	2006	(2)2009
2312	(2)2602		(2)3514	(1)3516 (1)3508	(1)3008 (1)3009	(2)2014	(2)2007	(2)2009
2313	(2)2602		(2)3503	(1)3515 (1)3504	(1)3101 (1)3102	(2)2014	2006	2009
2329	(2)2604	(2)3314	(2)3503	(2)3504	(2)3003	(2)2013	2006	2009
2330	**	**	**		**			
2331	2603	3312	3517	3504	3002		**	

\*\*Included-not stocked separately



See Electric  
Power for  
Electric  
Set Up  
**3407**

4.8 volts  
4 "C" size  
NiCad  
Batteries



## DUMAS

ALL OF THE ITEMS LISTED IN THE CHARTS BELOW  
ARE NOW BEING STOCKED AT TOWER HOBBIES

### POWER BOAT RUNNING HARDWARE KITS

		ENGINE	SHAFT
2301	for 1305 and 1401	.35	1/4-28
2306	for 1301 and 1302	.049	5-40
2309	for 1412 with angled shaft	.19	1/4-28
2310	for 1201	Electric Motor	
2311	for 1203, 1205 and 1212 (props same direction)	2 Electric Motors	
2312	for 1207	2 Electric Motors	
2313	for 1206	1 Electric Motor	
2314	for 1209, 1403, 1410, 1411, and 1422	.049	5-40
2315	for 1304 and 1308	.40	1/4-28
2317	for 1309	.20	1/4-28
2320	for 1412, 1413, 1414 parallel drive	.40	
2321	Flex-cable outdrive for 1413, 1414, and 1421	.40	
2322	for 1310	.19	1/4-28
2324	Flex-cable drive for 1315 and 1412	.20	
2325	Flex-cable outdrive for .60	.60	
2326	Flex-cable for 1410, 1411, and 1422	.10	10-32
2327	Flex-cable outdrive for 1410, 1411, and 1422	Enya .09	5MM - 9MM
2328	Flex-cable outdrive for 1312 and 1314	.40	1/4-28
2329	for 1210	1 Electric Motor	
2331	for 16" - 20" boats (electric motor included)		
2332	for 1211 and 1213		
2333	Flex-cable drive for 1317	O.S. Max 10FSR5 - 8MM	
2334	Outdrive for 1410, 1411, 1422	O.S. Max 10FSR5 - 8MM	
2335	For 1203, 1210, 1212 - props are in oppositedirections	2 Electric Motors	
2336	For 1411 and 1422 (electric motors are not included)	05 Electric Motor	

### ELECTRIC MOTORS, ADAPT-A-DRIVE COMPONENTS & ACCESS.

2004	Dumas Boat Motor - 6 volt
2005	Dumas Boat Motor - 12 volt
2006	Mounting Plate - 7"
2007	Mounting Plate - 1 3/4"
2008	Complete Coupling - 1/8" bore
2009	Driving Pinion Assembly
2010	Driven Gear Assy. - Reduction 1 1/2 to 1
2011	Driven Gear Assy. - Reduction 2 to 1
2012	Driven Gear Assy. - Reduction 3 to 1
2013	Drive Coupling Socket Assy. 1/8"
2014	Drive Coupling Socket Assy. 3/16"
2016	Compound Gear Set - 6 to 1
2017	Universal Socket - 1/8" bore
2018	Universal Socket - 3/16" bore
2019	Coupling Rod
2022	Speed Control for 6 v. Dumas Motors
2023	Speed Control for 12 v. Dumas Motors

### PLASTIC PROPELLERS

		DIAMETER	SHAFT
3001	Prop for .049 - 1/8" hole	1"	1/8"
3002	Prop for .09 - 1/8" hole	1 1/4"	1/8"
3003	Prop for .19 - .35 - 1/8" hole	1 - 3/4"	1/8"
3004	Prop for .19 - .35 - 3/16" hole	1 - 3/4"	3/16"
3005	Power prop for .35 - .45	2"	10-32
3006	Power prop for .35 - .45	2 - 3/16"	10-32
3008	Power prop/3 bladed - right	2 - 1/2"	10-32
3009	Power prop/3 bladed - left	2 - 1/2"	10-32
3012	Racing prop for .45 - .60	2"	10-32

### METAL PROPELLERS

		DIAMETER	SHAFT
3103	Bronze prop for .049 - .051	1"	1/8"
3105	Bronze prop for .19 - .35	1 - 3/4"	3/16"
3106	Bronze prop for .40	1 - 15/16"	3/16"
3107	Bronze prop for .60	2 - 3/16"	3/16"
3112	2" right hand bronze prop	2"	3/16"
3113	2" left hand bronz prop	2"	3/16"

### UNIVERSAL JOINTS & ENGINE COUPLINGS

		ENGINE	SHAFT
2911	Steel u-joint	1/4-28	3/16"
2915	Engine coupling for flex-cable	1/4-28	.150
2923	Engine coupling for flex-cable	1/4-28	.187

### SHAFT AND STUFFING BOX

2604	1/8" X 10 1/2" Threaded 5-40
------	------------------------------

### STUFFING BOX ONLY

2808	14" Teflon Tube for .150 flex-cable, for 2321
2809	14" Teflon Tube for .187 flex-cable, for 2325

### SHAFT ONLY

2702	3/16" X 16" Threaded 10-32, one end, Stainless HT
2704	3/16" X 24" Threaded 10-32, one end, Stainless HT
2705	3/16" X 18" Threaded 10-32, one end, Stainless
2709	.150 flex-cable and shaft for 2321
2710	.187 flex-cable and shaft for 2325

### FLYWHEELS AND COLLETS

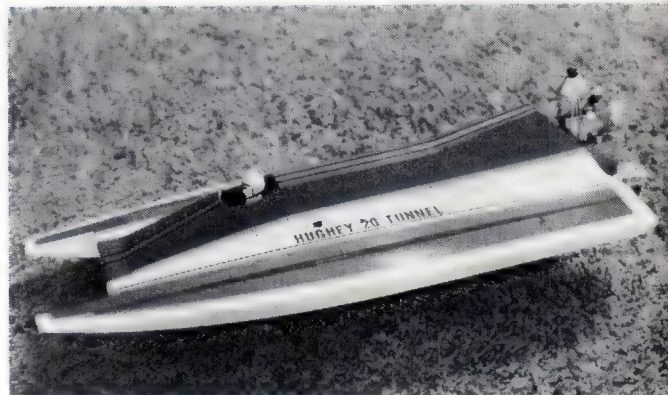
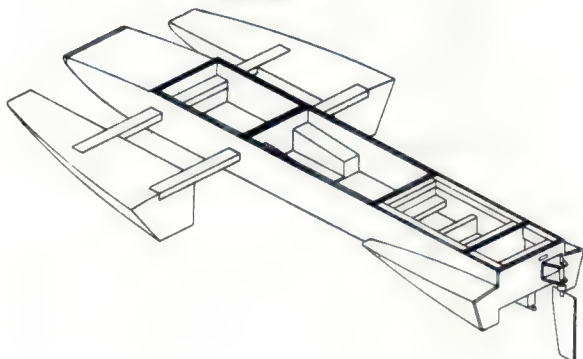
		ENGINE
2501	Flywheel with 1/8" hole	.049
2503	Flywheel with 1/4" hole	.19
2504	Flywheel with 1/4" hole	.29 - .35
2505	Flywheel with 1/4" collet	.35 - .45
2509	Flywheel with 1/4" collet	.50 - .65
2513	Collet - 1/4"	



# HUGHEY BOATS

## THE HUGHEY 21

### 21 & 40 Rigger



**3.5cc OUTBOARD KIT**

**WITH SLOTTED PROPELLER**

**HOLLOW ALUMINUM EXTRUSIONS  
MINIMUM MAINTENANCE!  
ASSURED ALIGNMENT**



- \* Surface Drive Hardware
- \* Complete with Precision Sawn Wood
- \* Adjustable Molded Sponsons
- \* Full Tank & Radio Area

Superior designed hull of rigid molded foam. Complete with cowl plus fully adjustable motor mount, and stainless steering arm. No difficult sheeting, or hull flexing. No fin required - No setup frustration.

**ENGINE NOT INCLUDED**

HUY70C21	HUGHEY BOATS HUGHEY 21 OUTBORD	100.00	89.95	155
HUY70C40	HUGHEY BOATS 21 RIGGER	135.00	121.50	155
HUY70121	HUGHEY BOATS 40 RIGGER	125.00	112.50	155

## MOTOR MOUNTS

## K & B MARINE

The two cycle engines that are used in model boats run best when rigidly mounted, and for this reason, it is important to select the proper Motor Mount for the engine size and boat type. Most boat kit manufacturers provide for a side rail mounting of either four or five inch spacing, and K & B Marine Specialties provides a line of Motor Mounts that are engineered for this type of installation. The older type of plate mount is not as rigid as side rail mounting and, when secured to the boat rails with wood screws, is very unreliable - especially when the wood around the screws becomes soaked with oil and fuel. The standard Motor Mount, such as the 1006, is very suitable for flat bottom monoplane hulls, such as the ski boat type, and also three and four point hydroplane hulls. The slotted holes in the mounting flanges permit adjustment of the engine shaft to bring it into alignment with the propeller shaft.

All the Motor Mounts are die-cast of high grade aluminum alloy, making them light, strong, and rigid. They have been designed for reliability. You can be sure that all Motor Mounts manufactured by K & B Marine Specialties have mounting spaces that will accommodate the crankcase of the specific engine size for which they are manufactured.

- 1004** 194 Motor Mount (4" for .19 engine)  
**1005** 404 Motor Mount (4" for .40 engine)

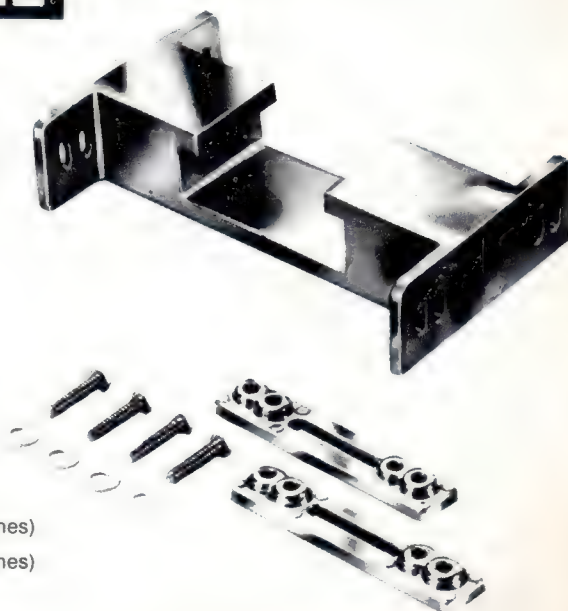
- 1006** 405 Motor Mount (5" for .40 engines)  
**1007** 605 Motor Mount (5" for .60 engines)

Above Assemblies include:

- 1211** RT-4 Retainer Plates 4" (2 Ea.)  
**1291** FW-8 Flat Washers (4 Ea.)  
**1305** HHC 8-32x1" Mounting Screws (4 Ea.)

Above Assemblies include:

- 1212** RT-5 Retainer Plates 5" (2 Ea.)  
**1291** FW-8 Flat Washers (4 Ea.)  
**1305** HHC 8-32 x 1" Mounting Screws (4 Ea.)



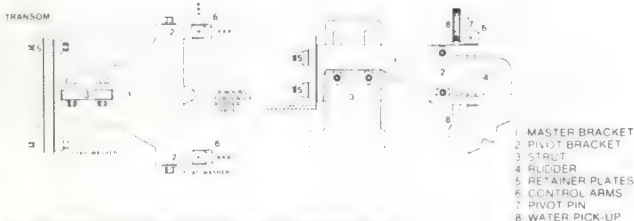


## K & B MARINE

### HBR OUTDRIVE ASSEMBLIES

The HBR, a heavy duty Rudder Assembly is an example of K & B Marine Specialties' success in designing and engineering hardware for model boats. The adaptability of the HBR unit is almost without limit. It gives the model boat designer a freedom of choices which allow him to design a boat that will have a cleaner underwater drive system, an adjustable thrust line for optimum performance, and double or single rudders which can be offset either right or left. Features such as the adjustable Pivot Bracket for the Rudders give control to change the attitude of the boat through the turn. Offsetting the Rudder Blades keeps them away from disturbed water caused by the rotation of the propeller blades, thereby making the Rudder more responsive. The HBR unit has been especially designed with Deep Vees in mind and constructed to withstand the high torque of the Schnuerle-ported engines.

The HBR has also been especially adapted to the 3/16 heavy duty Flex Cable Drive System.



### HBR SINGLE RUDDER OUTDRIVE ASSEMBLIES

#### 1030 HBR-140 Rudder Outdrive Assembly .40 Single Rudder

Includes

1226 2ARB Rudder Blade .40

#### 1034 HBR-140 Safety Shear Outdrive Assembly .40 Single Rudder

Includes

1228 SSRB-40 Safety Shear Rudder Blade .40

#### 1031 HBR-160 Rudder Outdrive Assembly .60 Single Rudder

Includes

1227 3ARB Rudder Blade .60

#### 1035 HBR-160 Safety Shear Outdrive Assembly .60 Single Rudder

Includes

1229 SSRB-60 Safety Shear Rudder Blade .60

### HBR RUDDER OUTDRIVE ASSEMBLIES 1030, 1031, 1034 & 1035

Above Assemblies include

1016 131 Control Arm (1 Ea.)  
with 1300 Set Screws 8-32 thread

1101 VOA-WP Water Pick-up  
with 1359 Hex Nuts

1212 RT-5 Retainer Plates 5"  
threaded 8-32 (2 Ea.)

1222 HBR-MB Master Bracket

1223 HBR-PB Pivot Bracket

1238 HBR-S Strut  
with 1188 Oilite Bushings 7/32"

1252 2-3PPL Long Pivot Pin

1200 NB Nylon Bushings (2 Ea.)

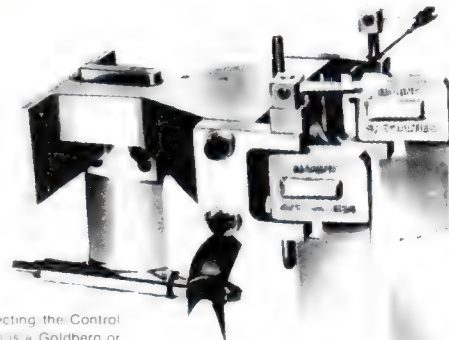
1291 FW-8 Flat Washers

1295 SW-8 Star Washers

1308 SHC 8-32 x 3/4 Screws

1309 SHC 8-32 x 1" Mounting Screws

### HBR DOUBLE RUDDER OUTDRIVE ASSEMBLIES



The tiebar connecting the Control Arms in the photo is a Goldberg or Du-Bro linkage system. The propeller and stub shaft are shown only to demonstrate position and are not included with the HBR Outdrive Assemblies.

### HBR DOUBLE RUDDER OUTDRIVE ASSEMBLIES

#### 1032 HBR-240 Rudder Outdrive Assembly .40 Double Rudder

Includes

1226 2ARB Rudder Blades .40 (2 Ea.)

#### 1036 HBR-240 Safety Shear Outdrive Assembly .40 Double Rudder

Includes

1228 SSRB-40 Safety Shear Rudder Blades .40 (2 Ea.)

#### 1033 HBR-260 Rudder Outdrive Assembly .60 Double Rudder

Includes

1227 3ARB Rudder Blades .60 (2 Ea.)

#### 1037 HBR-260 Safety Shear Outdrive Assembly .60 Double Rudder

Includes

1229 SSRB-60 Safety Shear Rudder Blades .60 (2 Ea.)

### HBR DOUBLE RUDDER OUTDRIVE ASSEMBLIES 1032, 1033, 1036 & 1037

Above Assemblies Each include

1016 131 Control Arms (3 Ea.)  
with 1300 Set Screws 8-32 thread

1101 VOA-WP Water Pick-up  
with 1359 Hex Nuts

1212 RT-5 Retainer Plates  
threaded 8-32 (2 Ea.)

1222 HBR-MB Master Bracket

1223 HBR-PB Pivot Bracket (2 Ea.)

1238 HBR-S Strut  
with 1188 Oilite Bushings 7/32"

1252 2-3PPL Long Pivot Pin (2 Ea.)

1200 NB Nylon Bushings (4 Ea.)

1291 FW-8 Flat Washers

1295 SW-8 Star Washers

1308 SHC 8-32 x 3/4 Screws

1309 SHC 8-32 x 1" Mounting Screws

### MOTOR MOUNTS

#### "QUICK CHANGE" MOTOR MOUNT SET

The "QC", Quick Change Motor Mount, was designed for all types of hulls, including the Deep Vee, and can be rail mounted. It has uniquely versatile, interchangeable insert adapters that accommodate both .40 and .60 engines. The five inch "QC" Master Mount is installed permanently in the boat. The inserts attach to the Master Mount with Socket Head Cap Screws. If you are running a .40 engine, use the .40 insert. To make a switch? Simply remove four Socket Head Cap Screws, change over to the .60 insert, and, "Presto" you are ready to run again!

The inserts alone can be rail mounted in boats with confined engine placement area.

#### "QC" MOTOR MOUNT SET

#### 1008 QC Quick Change Motor Mount Set

The QC Motor Mount Set includes:

#### 1009 QC-MM Master Mount 5" (1 Ea.)

#### 1010 QC-40 Insert Adapter for .40 engines (1 Ea.)

#### 1011 QC-60 Insert Adapter for .60 engines (1 Ea.)

#### 1212 RT-5 Retainer Plates 5" (2 Ea.)

#### 1291 FW-8 Flat Washers (4 Ea.)

#### 1309 SHC 8-32 x 1" Mounting Screws (4 Ea.)

#### 1308 SHC 8-32 x 3/4" Screws for Inserts (4 Ea.)

#### 1009 QC-MM Master Mount only

Includes:

#### 1212 RT-5 Retainer Plates 5" (2 Ea.)

#### 1309 SHC 8-32 x 1" Mounting Screws (4 Ea.)

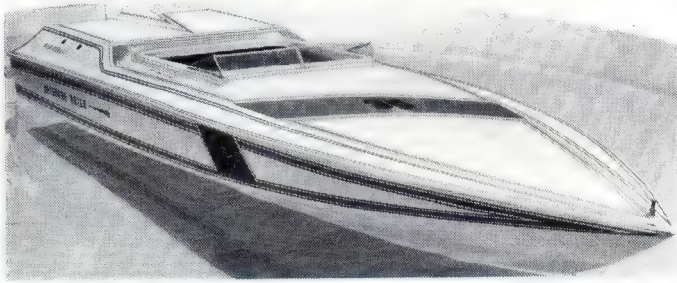
#### 1291 FW-8 Flat Washers (4 Ea.)

K6B14004	MARINE	1004	.19 MOTOR MT-4 IN.	5.50	4.95	155
K6B14005	MARINE	1005	.40 MOTOR MT-4 IN.	5.50	4.95	155
K6B14006	MARINE	1006	.40 MOTOR MT-5 IN.	6.60	5.95	155
K6B14007	MARINE	1007	.60 MOTOR MT-5 IN.	6.60	5.95	155
K6B14008	MARINE	1008	QUICK CHANGE MOUNT	18.60	15.80	156
K6B14009	MARINE	1009	MASTER MOUNT ONLY	8.80	7.95	156
K6B14010	MARINE	1010	INSERT ADAPTOR-.40	6.60	5.95	156
K6B14011	MARINE	1011	INSERT ADAPTOR-.60	6.60	5.95	156

K6B20C30	MARINE	1030	HBR-140 OUTDRIVE	33.00	26.40	156
K6B20C31	MARINE	1031	HBR-160 OUTDRIVE	33.00	26.40	156
K6B20C32	MARINE	1032	HBR-240 OUTDRIVE	38.50	30.80	156
K6B20C33	MARINE	1033	HBR-260 OUTDRIVE	38.50	30.80	156
K6B20C34	MARINE	1034	HBR-140 OUTDRIVE	34.00	27.20	156
K6B20C35	MARINE	1035	HBR-160 OUTDRIVE	34.00	27.20	156
K6B20C36	MARINE	1036	HBR-240 OUTDRIVE	40.50	32.40	156
K6B20C37	MARINE	1037	HBR-260 OUTDRIVE	40.50	32.40	156



## OFFSHORE RACER MARIX DRAG HYDRO AND ELIMINATOR

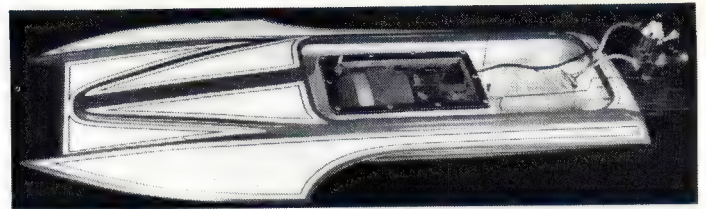


Length: 48"  
Width: 16"

### OFFSHORE RACER

Announcing one of the finest radio-controlled boats available. This kit will let you build a very fast, competitive, scale-looking off shore racer. The hull design incorporates the latest technology and meets all the requirements to make it legal for sanctioned racing. Build a stand-off scale or complete scale offshore racer. The hard part, the hull and deck design, is done. This boat has the closest resemblance to the real off-shore boats to be found in a fiberglass kit. The roominess inside allows for a wide choice of engine combinations and hardware. This is one of the few, if not the only boat available that will take a .90 size engine. The deck and hull come separated so you can build up the inside with plenty of ease and then just glue the lipped deck on. The kit includes hull, deck, cowling, radio box and instruction booklet.

MRX70300	MARIX MOR300 OFFSHORE RACER 90	119.95	95.95	157
MRX70520	MARIX MDH520 DRAG HYDRO 20	79.95	63.95	157
MRX70540	MARIX MEH540 ELIMINATOR HYDRO	89.95	71.95	157



Now you can have a high performance fiberglass dragboat that is so easy to assemble, you can have it on the water the same day you receive it! Both the Drag Hydro and the Eliminator operate with the speed of a wood kit boat and maneuver as well on the oval racing course as on the straight away.

Both scale models are easy boats to build and are competitive. Hull and deck are fully assembled; just bolt on an outboard or inboard engine, build the radio box (wood included in the kit), add gas tank and your boat is ready to race! Both feature hull and deck fully assembled; gel coated, 2 color combinations; run with either inboard or outboard in the .20 size engine class and distinctive styling.

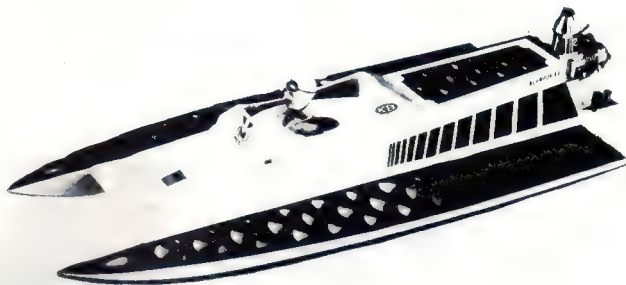
### DRAG HYDRO

Length: 30"; Requires a .20 size engine and a 2 channel radio.

### ELIMINATOR

Length: 38"; Requires a .40 size engine and a 2 channel radio.

## MIDWEST



### KLAMPON KAI

Designed by Charles E. Pottol. A Tunnel Hull Boat for 3.5 c.c. outboard engines. Sport or competition running. Simple aircraft quality plywood structure rapidly built on jig provided. Kit contains precision cut aircraft grade plywood parts, precision strip wood, sponge rubber radio hatch gasket and decals. Length 31 inches. Beam 13 inches. Radio 2 channel. Kit No. 900



### ELCO PT BOAT

The Midwest ELCO PT-BOAT is an authentic version of this historic veteran. The hull is fiberglass and comes joined to the plywood deck. All deck parts are die-cut in basswood. Radio 1 or 2 channel. Engine .10-.21. Length 35-1/2 inches. Beam 9-3/4". Major feature of this kit is ease of construction.

Kit No. 901

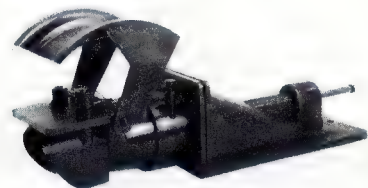
MID70900	MIDWEST 900 KLAMPON KAI OUTERD	51.95	36.35	157
MID70901	MIDWEST #901 ELCO PT-BOAT	79.95	59.95	157

## MRC

### TURBO TROL

The water jet propulsion system that offers modelers maneuverability and control even in the most treacherous or stump filled waters.

With Turbo Trol you can run the craft aground and still not damage prop shaft or rudder — because there is neither. Turbo Trol replaces prop and rudder assemblies. It offers model boaters an ability to run in reverse or brake in an instant.



MRC17C00 MRC TURBO TROL WATER JET

59.95 49.95 157



## STEVE MUCK'S

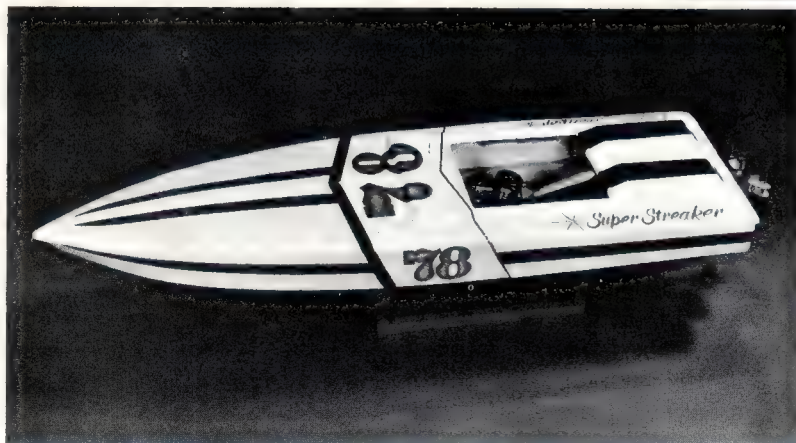
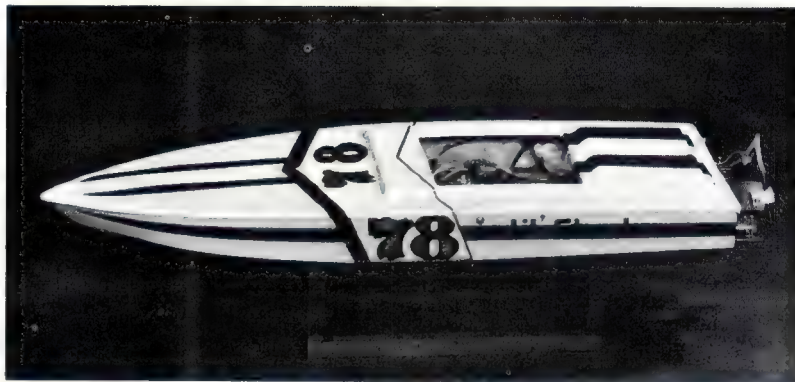
### LIL STREAKER 20

Fiberglass competition Deep Vee. IMPBA and NAMBA legal. This fiberglass hull has already shown its winning ways in major races across the country. Designed for top performance or fun running. Hull comes with engine rails cut, drilled and glued into the hull. Motor mount spacing is for a 4" mount such as Octura, Marine Specialty or Steve Muck's. Hull will handle all 3.5cc engines available. Kit comes with deck, bottom hatch and building instructions with page after page of photographs and building hints. A competition stern drive is also available. Uses two channel radio.

Length \_\_\_\_\_ 32" Transom width \_\_\_\_\_ 9 1/2"

Construction Kit No. 71

Uses Steve Muck's Hardware Set No. 67



### SUPER STREAKER 44

Fiberglass competition Deep Vee. Designed for top performance in competition. Plenty of room for large fuel supply to fuel the high performance .65 engines being built today. Hull comes with engine rails cut, drilled and glued in place ready for a Steve Muck's 5" motor mount and pads. Kit comes with building instructions showing step by step photos of how to assemble the deck, engine and stern drive hardware set. The deck has a built in rub rail for greater strength if needed. A competition hardware set using 3/16" cable is also available.

Length \_\_\_\_\_ 45" Width \_\_\_\_\_ 12"

Construction Kit No. 72

Uses Steve Muck's Hardware Set No. 66

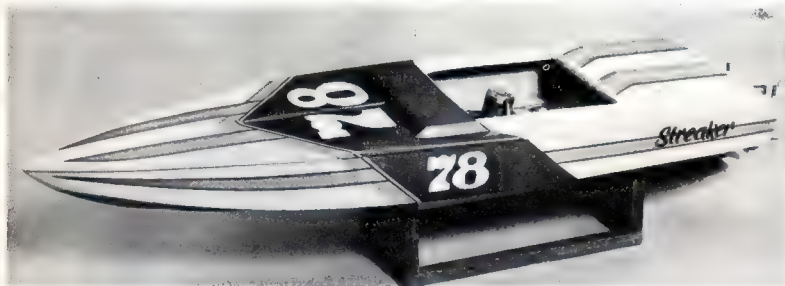
### CIRCUS CIRCUS 40 SPORT OR COMPETITION HYDRO

If Hydro's are your thing, here's the newest. A 40 size scale sport or competition version of the new Circus Unlimited Hydroplane. For R/C sport scale racing at its finest you'll like this one. Designed to handle the hottest 7.5cc engines on the market today. All birch plywood construction, with step by step photos and building instructions. A competition hardware set is also available.

Length \_\_\_\_\_ 36" Width \_\_\_\_\_ 16"

Construction Kit No. 73

Uses Dumas Hardware Set No. 2328



### THE STREAKER

FIBERGLASS COMPETITION DEEP VEE. IMPBA and NAMBA legal. This fiberglass hull is designed for top performance or fun. Deck installation with built in rub rail makes for easy deck installation and super strength for tough competition. Hull will handle all 6.5CC engines available. Kit comes with necessary wooden engine rails, rear hatch, and uses a Steve Muck's RC boat 5" motor mount and competition stern drive setup. Building instructions include page after page of photographs of building hints.

Length.....39 1/2"  
Transom Width.....10 1/4"

Construction Kit No. 58

Optional Drivers Hatch...Part No. 58H  
Uses Steve Muck's Hardware Set No. 66

MUC70130	MUCKS #71 LIL STREAKER 20	82.95	61.95	158
MUC70140	MUCKS #58 STREAKER DEEP VEE	89.95	67.50	158
MUC70150	MUCKS #72 SUPER STREAKER 44	99.95	74.95	158
MUC70160	MUCKS #73 CIRCUS CIRCUS HYDRO	149.95	119.95	158
MUC20130	MUCKS #66 HDWE-STREAKER & SS44	77.95	58.45	158
MUC20140	MUCKS #67 HDW FOR LIL STREAKER	69.95	52.45	158



## STEVE MUCK'S



### COMPETITION PROVEN LIL LIGHTNING

The LIL Lightning Tunnel Outboard was designed for the K&B 3.5CC Outboard Engine by George Campbell. The hull comes in two versions. For the builder who likes to work with wood the kit comes with all quality aircraft plywood, and fiberglass rear cowl. The second version is the all fiberglass hull, complete with fiberglass radio box. Both kits include plexiglass radio box lid, screws, turn fin and detailed instructions. Both models fit the new K&B Auto-trim.

Length ..... 30"

Width ..... 12"

Construction Kit No. 53

All Fiberglass Kit No. 56

### MINI DOLPHIN

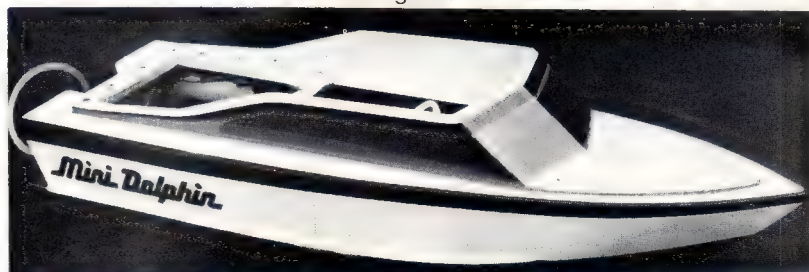
A little inexpensive fun day cruiser. The Mini Dolphin uses .09-.15 R/C marine engines. The Mini-Dolphin is an all wood kit using aircraft plywood sheeting, with a radio box built in with plenty of room for any two channel radio. Kit includes plexiglass radio box lid, screws, turn fin and page after page of photographs and building hints. Kit also includes motor mount plate & engine blocks.

Length ..... 22"

Width ..... 7½"

Construction Kit No. 57

Uses Dumas Hardware Set #2326 or 2327.



### LIL DOLPHIN

A three and one fun boat of wood construction designed for the beginner. The kit can be made to fit the K&B 3.5CC Outboard, inboard engines up to 3.5CC, or electric systems. Quality aircraft plywood is used throughout the kit. Kit includes radio box, plexiglass radio box lid, turn fin and screws. Uses a two channel radio.

Length ..... 28½"

Width ..... 9½"

Construction Kit No. 55

Uses Steve Muck's Hardware Set No. 63

### MIGHTY DOLPHIN

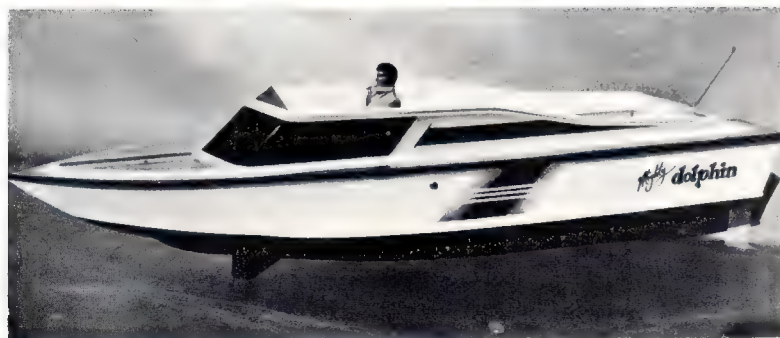
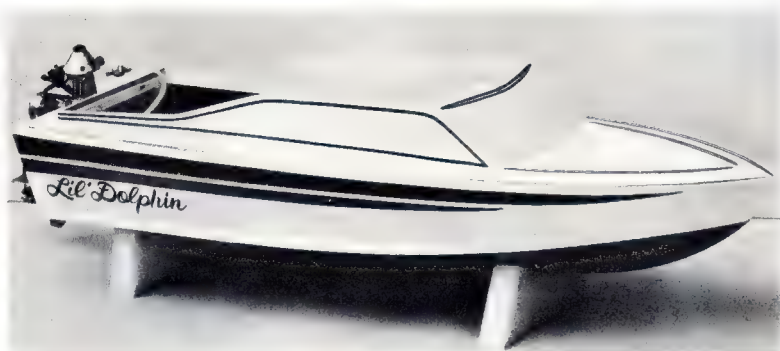
A Deep Vee day cruiser for fun or competition. Will handle any 6.5CC engine on the market today. This boat is made of quality aircraft plywood construction. Kit includes radio box, plexiglass radio box lid, turn fin and screws. The hull when completed, is both IMPBA and NAMBA legal for competition. This kit uses a 5" motor mount and fully adjustable stern drive available from Steve Muck's R/C Boats. Two channel needed.

Length ..... 36½"

Width ..... 11"

Construction Kit No. 59

Uses Steve Muck's Hardware Set No. 65



MLC20110	MUCKS #63 HARDWARE-LIL DOLPHIN	57.95	44.95	159
MUC20120	MUCKS #65 HRCWE-MIGHTY DOLPHIN	64.95	48.75	159
MLC70100	MUCKS #53 LIL LIGHTNING-WOOD	49.95	36.70	159
MLC70101	MUCKS #56 LIL LIGHTNING-GLASS	99.50	74.65	159
MLC70105	MUCKS #57 MINI DOLPHIN	29.95	24.75	159
MLC70110	MUCKS #55 LIL DOLPHIN	36.95	29.50	159
MLC70120	MUCKS #59 MIGHTY DOLPHIN	56.95	42.75	159



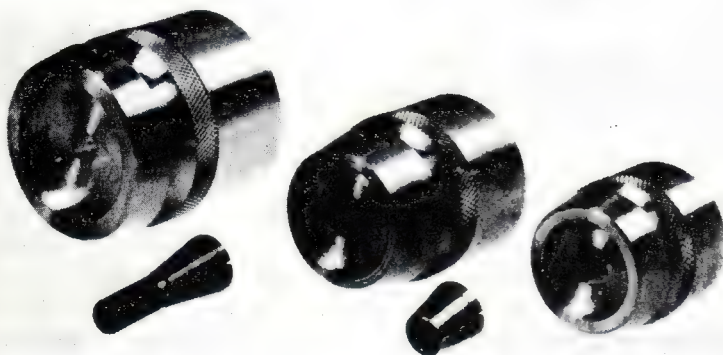
## NORCO

# NORCO <sup>R/c</sup> Newport



The Norco "Newport" custom cabin cruiser is the envy of all radio controlled model boat enthusiasts. It has an overall length of 46½" and a 13¼" beam, utilizing all plywood construction. This includes accurately cut parts of high grade plywood, mahogany decks and cabin top, clear pine and numbered for easy step by step construction, making it a truly fine boat for the beginner or the experienced model builder. Included in the kit are all parts necessary including full size assembly plans. Its spacious interior enables the builder to use a wide range of power units and permits easy installation of radio equipment. The "Newport" combines graceful design with smooth level performance producing a safe, easy handling craft at thrilling speeds determined by the size of the motor used.

## ALUMINUM FLYWHEELS



In keeping with our standard of quality in the Norco line of kits and fittings, Norco now brings to you, the model boat enthusiast, the latest design and the finest quality precision machined and balanced aluminum flywheels, for the ultimate in RPM and added engine and boat life. If you are interested in getting the best, Norco products are sure to please you.



## CABLE COLLET CONNECTOR

Norco's new improved ball and pin universal features a full 1/8 pin plus 2 - 8/32 set screws for extra holding power on 3/16 drive shaft, both male and female machined from 9/16 stock. Large diameter gives more surface area for better contact against flywheel. Flat on female provides for easy mounting to flywheel.

**NORCO'S New COLLET Connector** clamps completely around the cable which gives a positive clamping action. This eliminates soldering and the need for set screws which can fray the cable. Slip cable into the connector and tighten nut. Made of 1/2" hex steel.

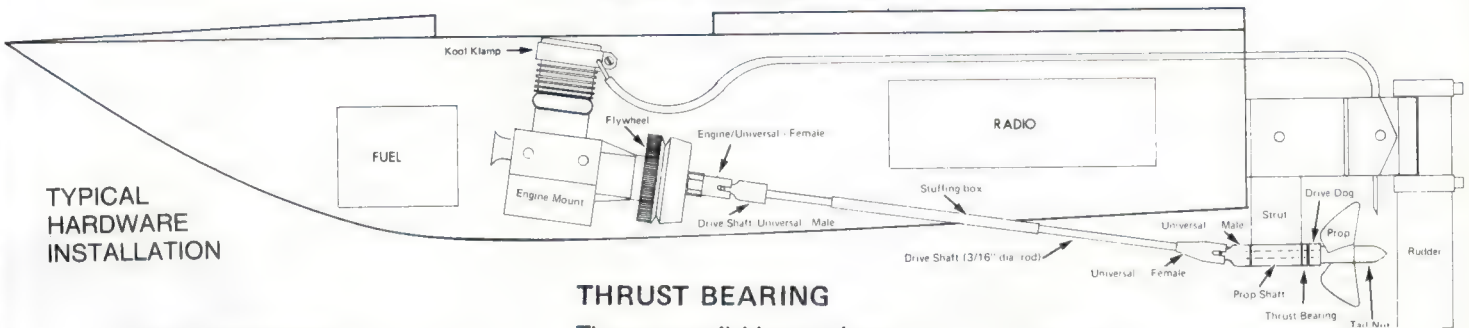
NCR20410	.150 CABLE COLLET CONN. 1/4x28	4.95	4.45	160
NCR20420	.187 CABLE COLLET CONN. 1/4x28	4.95	4.45	160
NCR20430	.187 CABLE COLLET CONN. 5/16x24	4.95	4.45	160
NCR20440	.187 CABLE COLLET CONN. 6MM	4.95	4.45	160
NOR70100	NORCC NEWPORT	74.95	55.95	160

NCR20010	NORCC RUNNING H/W FOR NEWPORT	17.95	15.25	160
NCR20219	19 FLYWHEEL W/COLLET 1/4-28	3.95	3.65	160
NCR20240	KB40 FLYWHEEL W/COLLET 1/4-28	6.75	6.10	160
NCR20261	KB61 FLYWHEEL W/COLLET 1/4-28	5.25	4.75	160
NCR20310	BALL & PIN UNIVERSAL 1/4-28	3.00	2.75	160



## OCTURA

### TYPICAL HARDWARE INSTALLATION



### ENGINE MOUNT

Metal engine mounts are necessary for R/C boats to dampen vibration and aid in cooling the engine. Engine and mount should be secured with machine screws (not wood screws). All side mounting pads on Octura mounts are machined and drilled. Motor mount pads are undrilled and untapped. Four motor mounting screws are included.

### FLYWHEEL

Octura flywheels are offered in both steel and aluminum and will fit all popular model engines. Flywheel is centered on the crankshaft by a collet (included) and secured with a female universal joint which replaces the prop nut.

### UNIVERSAL (ENGINE/DRIVE SHAFT)

All standard sets are 7/16" dia. and include OC610M ball end for coupling to 3/16" dia. drive shafts while Deluxe furnish the OC610ML (1/4" longer for reducing end play). Both types are available in Heavy Duty, 1/2" dia. and 1/2" hex. All necessary set screws are included.

### THRUST BEARING

These are available as a thrust washer set (OC-6TW) consisting of 2 hardened steel and 2 moly-nylon washers or the OC-6TB ball thrust bearing.

### TAIL NUT

This is a streamlined nut for the threaded end of the prop shaft and secures the prop. When the hardened prop shaft is necessary the Octura OC-6PNMU tail nut must be used.

### STRUDDER

The Octura strudder is a combination of adjustable strut and rudder. This is the recommended hardware for deep vee and tunnel hulls.

### PROP SHAFT

The prop shaft rides in the strut and holds the drive dog, thrust bearings, propeller and tail nut. The end contains a 10-32 thread for securing the prop with the tail nut. If needle bearings are used in the strut, the Octura OC-6PSH hardened shaft is necessary. A drive dog is secured to the prop shaft and keys into the prop.

### KOOL KLAMP

Any popular model engine can be water cooled for marine use by adding an Octura Kool Klamp.

### DRIVE SHAFT

The common drive shaft is 3/16" dia. drill rod (not available from Octura) and may be purchased locally. A flexible drive can be used in place of the drive shaft.

### STUFFING BOX

The most popular stuffing box is a length of 7/32" I.D. brass tubing secured to the full bottom with Epoxy cement. Upper part of the tubing should be above water line.

### UNIVERSAL JOINT (DRIVE SHAFT/PROP SHAFT)

The "below water" universal couples the drive shaft to the prop shaft and allows adjustment of the strut for proper thrust angle.

SEE PAGE 166 FOR ALL OCTURA STOCK NUMBERS & PRICES.

### EXTRUDED ALUMINUM MOTOR MOUNTS

Motor Mount	Width	Engine	Description	Stock No.
3-30	3"	.09 - .19	V type mount . . . . .	OCT16005
4-40	4"	.19 - .45	V type mount . . . . .	OCT16010
4-50	4"	.19 - .45	V type mount . . . . .	OCT16015
Twin 20	4"	.19	flat type mount . . . . .	OCT16020
Slant 40	4"	.19 - .45	flat type mount . . . . .	OCT16025
Twin 40	5"	.19 - .40	interchanges with 5-55 or 5-60 . . . . .	OCT16030
60 multi	5"	.40 - .71	flat type mount . . . . .	OCT16035
Omni (60 plate)	5"	.19 - .65	same as above minus end flanges . . . . .	OCT16040
5-55	5"	.40 - .80	V type mount . . . . .	OCT16045
5-60	5"	.40 - .80	for outrigger hulls . . . . .	OCT16050
Slant 60	5"	.40 - .65	flat type mount . . . . .	OCT16055
Swift switch	5"	.40 - .65	V type mount. Complete assembly base and insert . . . . .	OCT16060
Twin 60 - M	6"	.40 - .60	twin prop version. End pads and motor mount machined . . . . .	OCT16070
6-60	6"	.40 - .80	V type mount . . . . .	OCT16075
6-90	6"	.65 - .90	V type mount . . . . .	OCT16078
1 set (4) 6-32 T nuts and screws for mounting .30 - .60 mounts in hull . . . . .				OCT16160
1 set (6) 8-32 T nuts and screws for mounting .60 - O&R mounts in hull . . . . .				OCT16080

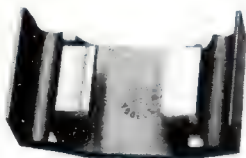
Side mounting pads machined and holes drilled. Motor mounting pads undrill. 4 motor mounting screws included with all mounts.



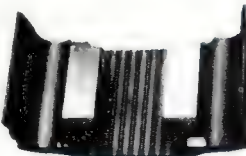
## OCTURA

A safe and secure method of mounting the engine in an R/C model power boat is extremely important. All Octura motor mounts are high strength aluminum extrusions, not brittle die castings, and are anodized either black or gold. Motor mounts are precision machined to provide a level mounting for the engine. Aluminum mounts absorb vibration and act as a heat sink for additional engine cooling. Wood mounts are not recommended as the moisture and vibration conditions in a boat can cause wood mounts to expand and contract causing loosening and splitting. Use bolts supplied with mount to fasten engine to mount. Do not use wood screws for holding mount in hull.

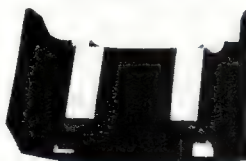
The Octura 3-30 mount is designed to accommodate engines up to .21 (3.5 cc). End pads are machined to fit a 3" engine bearer spacing. Engine mounting pads are machined but undrilled and untapped. Four 4-40 socket head bolts are supplied for mounting the engine. End pad holes are located  $\frac{1}{4}$ " apart on the engine crankshaft center line.



The Octura 4-40 mount is designed for engines up to .40 (6.5 cc). End pads are machined to fit 4" engine bearers spacing. Engine mounting pads are machined but undrilled and untapped. Four 6-32 socket head bolts are supplied. End pad holes are located 1-11/16" apart on the engine crankshaft center line.



The Octura 4-50 mount is interchangeable with the 4-40 mount but is of heavier construction.



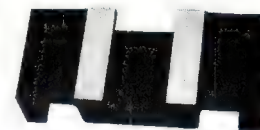
The Octura slant 40 mount is designed to mount engines up to .40 (6.5 cc) at a 10° angle. Intended to accommodate side port engines, it provides deck clearance for exhaust stacks or mufflers. End pads are machined to fit 4" engine bearers spacing and two sets of holes are provided, one set on the crankshaft center line, the other set 11/16" below. Four 6-32 socket head bolts are provided.



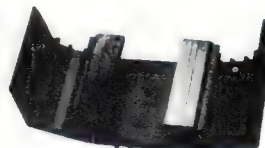
The Octura slant 60 mount accommodates engines from .40 (6.5 cc) to .60 (10 cc) featuring the 10° angle. End pads are machined to fit 5" engine bearer spacings and two sets of holes are provided, one set on the crankshaft center line the other set 11/16" below. Four 8-32 socket head bolts are provided.



The Octura 60 multi mount handles engines from .40 (6.5 cc) to .71 (10 cc). End pads are machined to fit engine bearers spaced 5" apart. Holes in end pads are 1-11/16" apart and 11/16" below the engine mounting pads. Engine mounting pads are machined but undrilled and untapped. Four 8-32 socket head bolts are supplied.



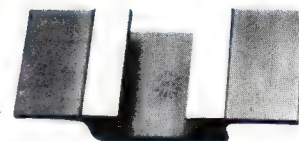
The Octura 5-55 mount was designed to mount .40 (6.5 cc) thru .60 (10 cc) engines in deep vee hulls. Machined end pads fit between engine bearers spaced 5" apart and are on crankshaft center line. Engine mounting pads are machined but undrilled and untapped. Four 6-32 socket head bolts are supplied.



The Octura 5-60 mount is interchangeable with the 5-55 mount but of heavier construction.



The Octura omni mount is similar to Octura multi mount but without the end flanges.



With the rise in popularity of the giant size boats and engines, Octura has introduced the 6-90 motor mount for engines .65 to .90 in size.



Octura has designed two twin mounts, the twin 40 and the twin 60. The twin 40, 5" wide, interchanges with the Octura 5-55 and 5-60 motor mounts. The twin 40 is machined to take either two K & B 6.5, OPS 40 or OS40S on 2-1/16" centers or two K & B 3.5 or OPS 3.5 engines.



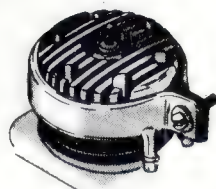
The Octura 6-60 mount handles engines from .40 (6.5 cc) thru .60 (10 cc). End pads are machined to fit between engine bearers spaced 6" apart. Holes in these pads are spaced 1-11/16" apart and are on crankshaft center line. Engine mounting pads are machined but undrilled and untapped. Four 8-32 socket head bolts are supplied.



## OCTURA

USE THE KOOL KLAMP NUMBER LISTED TO THE RIGHT OF EACH ENGINE TO CONVERT IT TO MARINE USE.

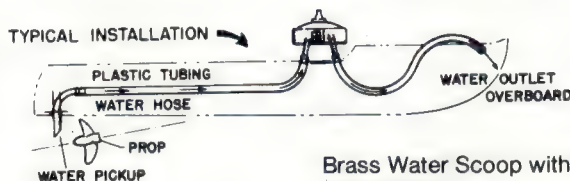
### OCTURA KOOL KLAMP



An inexpensive means to efficiently and quickly convert any model airplane engine to R/C marine use. Leaves glow plug readily accessible - no possibility of water leaking into engine. No modification of engine necessary! 15 sizes are available to equip any of the popular engines. To determine size: measure the diameter of the cylinder head. The number of 1/16ths over 1" is the size number. (i.e. 1 5/8" diameter = 10/16 = size 10; 1 3/4" diameter = 6/8" = 12/16" = size 12, etc.)

See the price listing section under OCT... for stock numbers and prices.

#### TYPICAL INSTALLATION



Brass Water Scoop with adjustable depth  
#OCT20071

ENYA	HB	O. S. MAX
.09 0	.25 5	.25 FSR 5
.15 3	.40 9	.35 6
.19 4	.40 PDP 9	.40 8
.29 6	.50 9	.40 FSR 7
.35 7	.61 11	.60 FSR 12
.40 8	.61 PDP 11	.60 Blackhead 13
.45 8		.80 14
.60 12	HP	
	.40 7	Rossi .60 11
FOX	.61 12	SUPERTIGRE
.15 3		.23 3
.19 5	K&B	.35 6
.25 5	.19 4	.40 6
.36 7	.21 4	X40 9
.40 Schnuerle 11	.40 7	.46 9
.45 Schnuerle 11	.61 12	G60 Bluehead 12
.60 Eagle 11		ST60 BB 12
.60 Hawk 13	OPS .60 12	X60 12
	O. S. Max	WEBRA
HB	.10 FSR 0	.20 4
.12 3	.15 1	.40 8
.15 3	.20 5	.61 Blackhead 12
.20 5	.25 5	.61 Speed 12

SEE PAGE 166 FOR ALL OCTURA STOCK NUMBERS & PRICES.

### PRECISION BALANCED FLYWHEELS

Used by experts who demand top performance from their R/C power boats. Octura Flywheels are available in steel or aluminum. Steel flywheels permit smoother idling and permit the use of slightly larger propellers. Ideal for new engines, enduro racing, heavy boats. Aluminum flywheels are recommended when faster acceleration and deceleration is needed. Recommended for seasoned engines, multi racing, light hulls, smaller props.

All Octura flywheels include adapter collet for all popular model airplane engines to insure positive grip on shaft. (Specify engine when ordering.)

Octura offers flywheels in 4 sizes, 2 styles and in both steel and aluminum. Ranging in weight from 9 oz. for the .60 size steel to 1 1/2 oz. for the 15 aluminum. There is a proper flywheel for engines from .15 thru .65, for hydros, monos, outriggers, tunnels and deep vees. All flywheels have a "V" groove for either cord or belt electric starting, knurled rim and two tightening holes. The steel flywheels are irridite plated while the aluminum ones are color anodized.

Each flywheel comes with a collet to adapt to the particular engine used. These taper collets grip the shaft as opposed to solid bore flywheels which are only held by end clamping action. If you acquire a new engine of the same displacement but with a different crankshaft size, no need to buy a complete new flywheel, just purchase the proper size collet.

The deep recess flywheels (DR) are designed to fit rear rotary engines while the double recess flywheels are intended for crankshaft rotary engines. The steel flywheels are recommended for deep vee hulls and straightaway hydro runs.

For K & B 65 rear rotary marine engines, order the Octura 45DR steel or aluminum flywheel with a K & B M collet. Remove stock aluminum flywheel and collet and install the Octura K & B M collet and flywheel. Engines uses a 1/4-28 universal joint (see universals).

For K & B 65 crankshaft rotary engines, order an Octura 30 or 45 steel flywheel with a K & B S collet. Original aluminum prop hub is left pinned to crankshaft and the stepped K & B S Octura collet is slipped on boss on hub. Stud is threaded in and flywheel is slipped on collet. An Octura 1/4-28 universal joint can be used to fasten the flywheel in place and connect the engine to a 3/16" dia drive shaft. (see universals)

#### OCTURA STARTER BELT: STOCK NO. OCT20500

STEEL FLYWHEELS			ALUMINUM FLYWHEELS		
FRONT ROTARY VALVE			FRONT ROTARY VALVE		
Octura No.	Size	Weight	Octura No.	Size	Weight
	(Dia. & width)	oz.		(Dia. & Width)	oz.
15	1 3/8 x 1	3 1/2	15A	1 3/8 x 1	1 1/4
30	1 5/8 x 1	5 1/2	30A	1 5/8 x 1	2
45	1 13/16 x 1	7 1/2	45A	1 13/16 x 1	2 3/4
60	2 x 1	9	60A	2 x 1	3 1/2
REAR ROTARY VALVE			REAR ROTARY VALVE		
Octura No.	Size	Weight	Octura No.	Size	Weight
	(Dia. & Width)	oz.		(Dia. & Width)	oz.
15	1 3/8 x 1	3 1/2	15A	1 3/8 x 1	1 1/4
30 DR	1 5/8 x 1	5 1/2	30DRA	1 5/8 x 1	2
45 DR	1 13/16 x 1	7	45DRA	1 13/16 x 1	2 3/4
60 DR	2 x 1	9 1/2	60DRA		
For Rossi 60, OPS, HP61RR			For Rossi 60, OPS, HP61RR		
45DRR	1 13/16 x 1	7	60DRRA	2 x 1	3 1/2
60 DRR	2 x 1	9			

ALL FLYWHEELS LISTED WILL COME WITH A 1/4-28 COLLET.

Collets, 3/16, 7/32, 1/4, 5/16, 5mm, 6mm, 7mm, 8mm, K&BS, K&BM, OS40S  
Collet for K&B or Rossi (does NOT include spacer or female universal)  
Spacer: 1/4 or 5/16 bore

K&BS collet fits K&B side exhaust Schnuerle engine.  
K&BM collet fits K&B 40 marine engine.  
OS40S collet fits OS40 Schnuerle engine.

### UNIVERSAL JOINTS

Plated hardened steel Universal Joints by Octura can take the punishment of hot competition. Don't take chances with inferior universals, it can mean a damaged engine or lost race! All sets include set screw or screws.



Standard universals - 7/16" dia., 7/16" hex  
Heavy Duty (HD) universals - 1/2" dia., 1/2" hex

Engine/drive shaft universals are available in 10-32, 7/32, 5 mm, 6 mm, 7 mm, 1/4-28, and 5/16-24 thread sizes. Each set includes both the male and female parts.



# MODEL BOAT KITS

## OCTURA

### DRIVE SHAFT/PROP SHAFT UNIVERSALS

Hardened steel and plated. Connects drive shaft to prop shaft. Necessary for parallel struts or for adjustable struts.

OC-610F Female Bored for 3/16" shaft  
OC-610M Male Bored for 3/16" shaft



### SHAFT COLLARS

Octura Shaft Collars will retain the prop when unthreaded prop shaft is used.

OC-6SC shaft collar 3/16 bore 1/4 wide 7/16 dia. with 8-32 set screw



### PROP SHAFTS

Octura steel prop shafts can take all the torque from engines up to .90 cu. in. Fits parallel, steering, and adjustable struts. Overall length 3 1/8" long, 3/16" diameter, threaded for 10-32.



OC-6PSH unthreaded hardened shaft with OC-6D 3/16 dia. 3-1/2 lg for use with needle bearing.

### DRIVE DOGS

Keys into Octura Props. No slop. No rattle.

OC-6DM drive dog 3/16 dia 3/8 O.D., 6-32 set screw



Needle bearing 3/16 I.D. 11/32 O.D., rated for 30,000 r.p.m.

### STREAMLINE TAIL NUTS

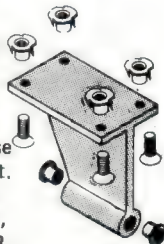
Tail Nuts give you a positive means of holding the prop on the shaft securely. Octura Streamlined Tail Nuts are made of hardened steel to take abuse and plated to prevent corrosion. Threaded for 10-32 threaded shaft with flats or set screws for tightening.



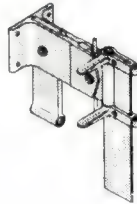
OC-6PNMU streamlined tail nut unthreaded to fit 3/16 dia. shaft

### PARALLEL STRUTS

Extruded high strength aluminum. Ideal for surface prop applications on hydros. Each strut comes complete with 4 mounting screws, 4 tee nuts, and bored for Needle Bearings. Sizes are measured from under side of mounting base to center of bearing support. Parallel struts are available in 1/2, 3/4", 7/8, 1", 1 1/8, 1 1/4", 1 3/8, 1 1/2", 1 5/8, and 1 3/4". Needle bearings sold separately.



### OCTURA'S FAMOUS STRUDDER



An adjustable strut and adjustable rudder combined into one assembly. Ideal for Deep V hulls. Strut and mount is extruded aluminum, rudder blade is stainless and rides on lead Teflon bearings. Nylon control horn. Water pick-up is included. Strut bored for needle bearings. (Bearings not included).

### ADJUSTABLE STRUTS

#### STANDARD

Fully adjustable for prop depth and thrust angle. All struts are bored for needle bearings. A reducer bushing must be used when installing sleeve or ball bearings. Bearings are not included with struts.

#### DEEP VEE

Same as the standard strut but with a longer blade for deep hulls. Designed for deep vee hulls in place of Strudder.

#### SURFACE DRIVE

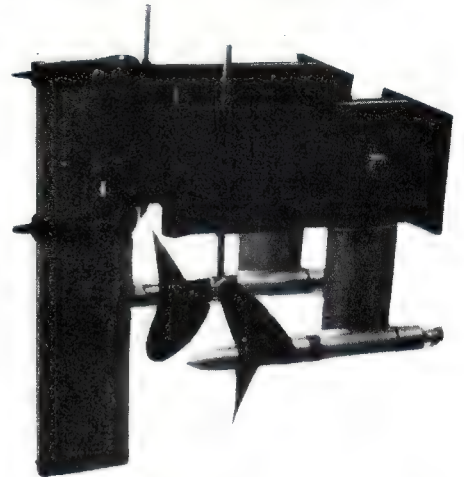
Designed for the rigors of surface prop applications on hydros. Strut base is flat bottom.



Made especially for surface applications. Strut blade is extruded with cast mounting base. Bored for needle bearings. (Note: Bearings not included).

### TWIN DRIVE STRUDDER

Same features as the Strudder but for twin drive applications. Left and right pitch props are recommended.

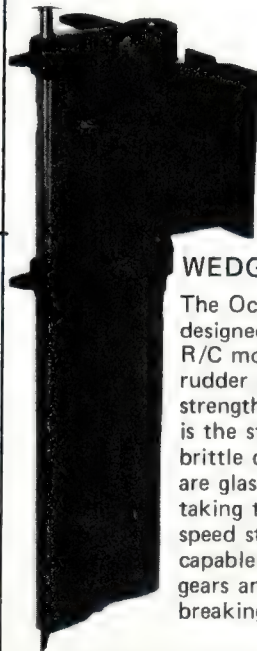


SEE PAGE 166 FOR ALL OCTURA STOCK NUMBERS & PRICES.

### WEDGE RUDDER

The Octura wedge rudders are designed for the strains of rigorous R/C model power boat racing. The rudder blade is a high tensile strength aluminum extrusion as is the stern mounting bracket (not brittle die castings). The tiller arms are glass filled nylon capable of taking the punishment of high speed straightaway and turns, yet capable of protecting the servo gears and hull's stern by flexing or breaking when hitting something.

Rudder shaft pivots on lead Teflon bushings offering minimum drag and maximum service. Shaft is confined to prevent it's working loose. Water tube is supported in the trailing edge of rudder so you never have to worry about an over-extended water pick-up tube vibrating and then breaking off in the middle of a run. Rudder can be filed to your hull requirements with minimum of material removal.





## OCTURA

## OCTURA HIGH PERFORMANCE PROPELLERS

For Engine Size	Diameter	120Q (YELLOW) Prop. No. Pitch	1400* (BROWN) Prop. No. Pitch	1500* Prop. No. Pitch	1600* (GRAY) Prop. No. Pitch	1700* Prop. No. Pitch	Z (BLUE) Prop. No. Pitch	COMPETITION* (BLACK) Prop. No. Pitch	1800 (WHITE) Prop. No. Pitch	1900* Prop. No. Pitch	2000 (ORANGE) Prop. No. Pitch	2100 (GREEN) Prop. No. Pitch	2200* Prop. No. Pitch
.15	35mm 1.378"		1435 49mm 1.92"								2035 70mm 2.76"		
.19	40mm 1.574"	1240 48mm 1.88"	1440 56mm 2.20"					1.6 72mm 2.83"					
.29	45mm 1.771"	1245 54mm 2.12"	1445 63mm 2.48"					1.8 81mm 3.19"		1945 86.5mm 3.37"	2045 90mm 3.54"		
.35	47mm 1.889"					1747 79.9mm 3.15"							
.40	50mm 1.968"	1250* 60mm 2.36"	1450 70mm 2.76"		1650 80mm 3.15"	1750 85mm 3.36"	Z50 80mm 3.15"	2.0 90mm 3.54"	1850 90mm 3.54"	1950 95mm 3.74"	2050 100mm 3.93"		2250 110mm 4.33"
.46	55mm 2.165"	1255 66mm 2.59"	1455 77mm 3.03"		1655 88mm 3.46"	1755 93.5mm 3.68"	Z55 88mm 3.46"	2.2 99mm 3.9"	1855 99mm 3.9"	1955 104.5mm 4.11"	2055 110mm 4.33"		
.60	57mm 2.24"		1457 79.8mm 3.14"							1957 108.3mm 4.26"			
.65	60mm 2.362"		1460 84mm 3.31"	1560 90mm 3.54"			Z60 96mm 3.78"	2.4 108mm 4.25"	1860 108mm 4.25"		2060 120mm 4.72"	2160 126mm 4.96"	2260 132mm 5.2"
.65	62mm 2.44"		1462 86.8mm 3.42"										
.65	63.5mm 2.51"							2.5 114.3mm 4.5"					
.71	65mm 2.559"		1465 91mm 3.58"					2.6 117mm 4.61"					
.80	67mm 2.64"			1567 100.5mm 3.96"	1667 107.2mm 4.22"								
.80	70mm 2.755"	1270 84mm 3.30"	1470 98mm 3.86"		1670 112mm 4.46"			2.8 126mm 4.96"					
HULL TYPE													
MONO HYDRO SURFACE													
		M	M H S	HS	M H S	MHS	MH	HS	M H S	MHS	HS	HS	MHS

## PROPELLERS

Since Octura introduced its series of specially designed R/C power boat propellers in 1968, boat speeds have increased considerably. Whether mono, hydro, deep-V, tunnel, or outrigger, all hulls have shown a marked improvement in performance when fitted with the proper Octura propeller. To paraphrase, a popular expression, "behind every winning R/C power boat the odds are there is an Octura propeller."

Octura offers model marine propellers in both plastic and metal. If one is just starting in the hobby, we definitely recommend using a plastic propeller. First it will give you an opportunity to test run your new boat with several inexpensive propellers before deciding which performs best. Second, if in the get-acquainted running of your new boat, you accidentally run on the bank or the rocks, the blades will break off the propeller without any real damage to your drive system. A metal propeller under the same conditions will not treat your boat's drive train that gentle. It is possible to run a plastic propeller submerged on all but the highest out put engines. For these engines and for most surface props applications, a metal propeller is recommended. The aluminum props are stronger than the plastic while the silicon brass is stronger than aluminum and the beryllium copper is the strongest.

Octura propellers are identified by a number molded on the rear of the prop hub. As an example, the Octura 1450 propeller--what does it mean? The 14 indicated 1.4 x the diameter for the pitch. What is the diameter? The last two numbers "50" indicate 50mm or approximately two inches, thus  $1.4 \times 50 = 70\text{mm}$  or about 2-3/4" pitch. Simple? Lets take an Octura 2060 prop-- $2.0 \times 60\text{mm} = \text{approximately } 4.72$  pitch.

Two of the series were introduced before we arrived at our numbering system, the competition series--2.0, 2.2, 2.4, etc. which numbers indicate prop diameter in inches and the super marine racing series--Z-50, Z-55 and Z-60. There the number indicated the prop diameter in millimeters. However, the diameter pitch ratio for the competition series is  $1.8 \times D$  while the super marine series is  $1.6 \times D$ .

Since our original propeller chart was compiled and the propellers listed therein found their way into use, we have been gathering data on their application. Naturally, with the introduction of new hulls, engines, drives, etc., some changes have to be made in propeller recommendations.

The general trend seems to have been the propellers used on the .60 hydros are now being used on the .40 hydros, while the propellers recommended for .40 hydros are now being used on .21 hydros. We find .60 and .65 outriggers turning our 1465, 1467, 1470 and 1667 propellers for multi racing, while .40 - .45 outriggers are running 1462, 1465, 1955 and 1957 propellers. Even the .21 are turning 1950 and 1455 props. For straightaway runs the 2.6, 2.8 and 2260 work well on the .60 - .65 while the .40 - .45 are turning 2.4, 2.5 and 2160 propellers and the .21's are swinging 2.0 and 1950 props. For deep V .60 the 1455 and 1457 have proved winners in multi racing while .40 deep V handle 1250, 1445, 1450 and 1945 props. For .21s the 1240 and 1440 appear to be the answer.

(continued on Page 166)



(continued from Page 165)

Octura Models has 3 bladed versions of the above propellers in work and these will be announced as they become available. The propeller to use is the one that gives the best performance, be it a 2, 3 or 4 bladed propeller. However, we have always believed in the most m.p.h. with the least r.p.m. If your boat is running in an enduro, it has a better chance of crossing the finish line if it doesn't have the engine doing over 20,000 r.p.m. for the full time. There is no percentage in leading the pack for most of the time only to blow the connecting rod short of the finish line. We've seen a number of boats running under-propped engines, screaming and turning some fantastic times but in many cases either not finishing or requiring new connecting rods after 3 heats as the 4th heat with the same rod would result in failure. Something to keep in mind, consistency wins heats and points. No finish - no points!

All Octura metal propellers are precision investment castings, unpolished and unbalanced. We have seen R/C boats run successfully with our metal propellers right out of the bag, but we recommend balancing and polishing for maximum efficiency. Do not file and polish blades too thin.

OCT10028	CCTURA #2.8 PLASTIC PROP	1.65	1.55	166	OCT10016	CCTURA #1.6 PLASTIC PROP	.75	.70	166
OCT10700	CCTURA #X70 PLASTIC PROP	1.65	1.55	166	OCT10018	CCTURA #1.8 PLASTIC PROP	.85	.80	166
OCT11240	CCTURA #1240 PLASTIC PROP	.75	.70	166	OCT10020	CCTURA #2.0 PLASTIC PROP	.95	.90	166
OCT11250	CCTURA #1250 PLASTIC PROP	.95	.90	166	OCT10022	CCTURA #2.2 PLASTIC PROP	1.05	1.00	166
OCT11255	CCTURA #1255 PLASTIC PROP	1.05	1.00	166	OCT10024	CCTURA #2.4 PLASTIC PROP	1.25	1.20	166
OCT11270	CCTURA #1270 PLASTIC PROP	1.65	1.55	166	OCT10026	CCTURA #2.6 PLASTIC PROP	1.45	1.40	166
OCT11435	CCTURA #1435 PLASTIC PROP	.65	.60	166	OCT10028	WCTCR MTG. T NUTS & BOLTS 6-32	.80	.75	161
OCT11440	CCTURA #1440 PLASTIC PROP	.75	.70	166	OCT10180	WCTCR MTG. T NUTS & BOLTS 8-32	1.10	1.05	161
OCT11445	CCTURA #1445 PLASTIC PROP	.85	.80	166	OCT16305	CCTURA STEEL FLYWHEEL 15	4.60	4.35	163
OCT11450	CCTURA #1450 PLASTIC PROP	.95	.90	166	OCT16310	CCTURA STEEL FLYWHEEL 30	4.90	4.65	163
OCT11455	CCTURA #1455 PLASTIC PROP	1.05	1.00	166	OCT16315	CCTURA STEEL FLYWHEEL 30DR	4.90	4.65	163
OCT11457	CCTURA #1457 PLASTIC PROP	1.15	1.10	166	OCT16320	CCTURA STEEL FLYWHEEL 45	5.50	5.25	163
OCT11460	CCTURA #1460 PLASTIC PROP	1.25	1.20	166	OCT16325	CCTURA STEEL FLYWHEEL 45DR	5.50	5.25	163
OCT11462	CCTURA #1462 PLASTIC PROP	1.35	1.30	166	OCT16330	CCTURA STEEL FLYWHEEL 45DRR	9.90	9.40	163
OCT11465	CCTURA #1465 PLASTIC PROP	1.45	1.40	166	OCT16335	CCTURA STEEL FLYWHEEL 60	6.35	6.05	163
OCT11470	CCTURA #1470 PLASTIC PROP	1.65	1.55	166	OCT16340	CCTURA STEEL FLYWHEEL 60DR	6.35	6.05	163
OCT12035	CCTURA #2035 PLASTIC PROP	.65	.60	166	OCT16345	CCTURA STEEL FLYWHEEL 60DRR	9.90	9.40	163
OCT12045	CCTURA #2045 PLASTIC PROP	.85	.80	166	OCT16350	CCTURA ALUM. FLYWHEEL 15A	4.60	4.35	163
OCT12050	CCTURA #2050 PLASTIC PROP	.95	.90	166	OCT16355	CCTURA ALUM. FLYWHEEL 30A	4.90	4.65	163
OCT12055	CCTURA #2055 PLASTIC PROP	1.05	1.00	166	OCT16360	CCTURA ALUM. FLYWHEEL 30DRA	4.90	4.65	163
OCT12060	CCTURA #2060 PLASTIC PROP	1.25	1.20	166	OCT16365	CCTURA ALUM. FLYWHEEL 45A	5.50	5.25	163
OCT12160	CCTURA #2160 PLASTIC PROP	1.25	1.20	166	OCT16370	CCTURA ALUM. FLYWHEEL 45DRA	5.50	5.25	163
OCT13016	CCTURA #1.6 BERYL.COPPER PROP	8.25	7.85	166	OCT16375	CCTURA ALUM. FLYWHEEL 60A	6.35	6.05	163
OCT13018	CCTURA #1.8 BERYL.COPPER PROP	8.55	8.10	166	OCT16380	CCTURA ALUM. FLYWHEEL 60DRA	6.35	6.05	163
OCT13020	CCTURA #2.0 BERYL.COPPER PROP	8.85	8.40	166	OCT16385	CCTURA ALUM. FLYWHEEL 60DRRA	9.90	9.40	163
OCT13022	CCTURA #2.2 BERYL.COPPER PROP	9.35	8.90	166	OCT16405	CCTURA COLLET 1/4"	1.15	1.10	163
OCT13024	CCTURA #2.4 BERYL.COPPER PROP	9.40	8.95	166	OCT16410	CCTURA COLLET 3/16"	1.15	1.10	163
OCT13025	CCTURA #2.5 BERYL.COPPER PROP	9.60	9.10	166	OCT16415	CCTURA COLLET 7/32"	1.15	1.10	163
OCT13026	CCTURA #2.6 BERYL.COPPER PROP	9.70	9.20	166	OCT16420	CCTURA COLLET 5/16"	1.15	1.10	163
OCT13028	CCTURA #2.8 BERYL.COPPER PROP	9.95	9.45	166	OCT16425	CCTURA COLLET 5MM	1.15	1.10	163
OCT13455	CCTURA #X455 BERYL.COPPER PROP	9.35	8.90	166	OCT16430	CCTURA COLLET 6MM	1.15	1.10	163
OCT13700	CCTURA #X70 BERYL.COPPER PROP	9.95	9.45	166	OCT16435	CCTURA COLLET 7MM	1.15	1.10	163
OCT14245	CCTURA #1245 BERYL.COPPER PROP	8.55	8.10	166	OCT16440	CCTURA COLLET 8MM	1.15	1.10	163
OCT14250	CCTURA #1250 BERYL.COPPER PROP	8.85	8.40	166	OCT16445	CCTURA COLLET K&BS	1.15	1.10	163
OCT14255	CCTURA #1255 BERYL.COPPER PROP	9.35	8.90	166	OCT16450	CCTURA COLLET K&BM	1.15	1.10	163
OCT14270	CCTURA #1270 BERYL.COPPER PROP	9.95	9.45	166	OCT16455	CCTURA COLLET OS&OS	1.15	1.10	163
OCT14440	CCTURA #1440 BERYL.COPPER PROP	8.25	7.85	166	OCT16505	CCTURA ENGINE U-JOINT 10-32 DX	2.90	2.75	166
OCT14445	CCTURA #1445 BERYL.COPPER PROP	8.55	8.10	166	OCT16510	CCTURA ENGINE U-JOINT 7/32 CLX	2.90	2.75	166
OCT14450	CCTURA #1450 BERYL.COPPER PROP	8.85	8.40	166	OCT16515	CCTURA ENG.U-JOINT 5MM HC CLX	3.15	3.00	166
OCT14455	CCTURA #1455 BERYL.COPPER PROP	9.35	8.90	166	OCT16520	CCTURA ENG.U-JOINT 6MM HC CLX	3.15	3.00	166
OCT14457	CCTURA #1457 BERYL.COPPER PROP	9.40	8.95	166	OCT16525	CCTURA ENG.U-JOINT 7MM HC CLX	3.15	3.00	166
OCT14460	CCTURA #1460 BERYL.COPPER PROP	9.60	9.10	166	OCT16530	CCTURA ENG UJOINT 1/4-28 HCLX	3.15	3.00	166
OCT14462	CCTURA #1462 BERYL.COPPER PROP	9.70	9.20	166	OCT16535	CCTURA ENG UJOINT 5/16-24 HCLX	3.15	3.00	166
OCT14465	CCTURA #1465 BERYL.COPPER PROP	9.90	9.40	166	OCT16605	CG610FD FEMALE U.WATER UJOINT	1.70	1.60	164
OCT14467	CCTURA #1467 BERYL.COPPER PROP	10.60	9.75	166	OCT16610	CG610M MALE UNDERWATER U-JOINT	1.65	1.55	164
OCT14470	CCTURA #1470 BERYL.COPPER PROP	9.95	9.45	166	OCT17005	.150 FLEX. DRIVE SHAFT 20"	8.95	8.50	166
OCT14560	CCTURA #1560 BERYL.COPPER PROP	9.40	8.95	166	OCT17010	CCTURA OC6SC SHAFT COLLAR 3/16	.85	.80	164
OCT14567	CCTURA #1567 BERYL.COPPER PROP	10.60	9.75	166	OCT17015	CCTURA OC6PNMU TAIL NUT 3/16	.85	.80	164
OCT14650	CCTURA #1650 BERYL.COPPER PROP	8.85	8.40	166	OCT17020	CCTURA OC6DM DRIVE DOG 3/16	1.00	.95	164
OCT14655	CCTURA #1655 BERYL.COPPER PROP	9.35	8.90	166	OCT17025	CCTURA NEEDLE BEARING 3/16	3.00	2.85	164
OCT14662	CCTURA #1662 BERYL.COPPER PROP	9.60	9.10	166	OCT17030	CG6PSH PRCP SHAFT W/DRIVE DOG	3.50	3.35	164
OCT14667	CCTURA #1667 BERYL.COPPER PROP	10.60	9.75	166	OCT17105	CCTURA PARALLEL STRUT 1/2"	4.40	4.20	164
OCT14747	CCTURA #1747 BERYL.COPPER PROP	8.70	8.25	166	OCT17110	CCTURA PARALLEL STRUT 3/4"	4.40	4.20	164
OCT14750	CCTURA #1750 BERYL.COPPER PROP	8.85	8.40	166	OCT17115	CCTURA PARALLEL STRUT 1"	4.40	4.20	164
OCT14945	CCTURA #1945 BERYL.COPPER PROP	8.55	8.10	166	OCT17120	CCTURA PARALLEL STRUT 1-1/4"	4.40	4.20	164
OCT14950	CCTURA #1950 BERYL.COPPER PROP	8.85	8.40	166	OCT17125	CCTURA PARALLEL STRUT 1-1/2"	4.40	4.20	164
OCT14955	CCTURA #1955 BERYL.COPPER PROP	9.35	8.90	166	OCT17130	CCTURA PARALLEL STRUT 1-3/4"	4.40	4.20	164
OCT14957	CCTURA #1957 BERYL.COPPER PROP	9.30	8.85	166	OCT17205	CCTURA STD. ADJUSTABLE STRUT	7.95	7.55	164
OCT15045	CCTURA #2045 BERYL.COPPER PROP	8.55	8.10	166	OCT17210	CCTURA DEEP V ADJUSTABLE STRUT	8.95	8.50	164
OCT15050	CCTURA #2050 BERYL.COPPER PROP	8.85	8.40	166	OCT17215	SURFACE DRIVE ADJUSTABLE STRUT	9.45	9.00	164
OCT15055	CCTURA #2055 BERYL.COPPER PROP	9.35	8.90	166	OCT17220	CCTURA STRUCCER ASSEMBLY	23.95	21.55	164
OCT15060	CCTURA #2060 BERYL.COPPER PROP	9.40	8.95	166	OCT17225	CCTURA TWIN DRIVE STRUCCER	45.95	38.95	164
OCT15160	CCTURA #2160 BERYL.COPPER PROP	9.40	8.95	166	OCT17230	CCTURA LARGE WEDGE RUCCER	11.25	10.35	164
OCT15250	CCTURA #2250 BERYL.COPPER PROP	8.85	8.40	166	OCT17235	CCTURA MEDIUM WEDGE RUCCER	10.65	9.80	164
OCT15260	CCTURA #2260 BERYL.COPPER PROP	9.40	8.95	166	OCT20000	CCTURA KCOL KLAMP #0	5.95	5.65	163
OCT16005	CCTURA MCTOR MOUNT 3-30	4.35	4.15	162	OCT20010	CCTURA KCOL KLAMP #1	5.95	5.65	163
OCT16010	CCTURA MCTOR MOUNT 4-40	4.95	4.70	162	OCT20020	CCTURA KCOL KLAMP #2	5.95	5.65	163
OCT16015	CCTURA MCTOR MOUNT 4-50	5.45	5.20	162	OCT20030	CCTURA KCOL KLAMP #3	5.95	5.65	163
OCT16020	CCTURA MCTOR MOUNT TWIN 20	10.45	9.60	161	OCT20040	CCTURA KCOL KLAMP #4	5.95	5.65	163
OCT16025	CCTURA MCTOR MOUNT SLANT 40	5.45	5.20	162	OCT20050	CCTURA KCOL KLAMP #5	5.95	5.65	163
OCT16030	CCTURA MCTOR MOUNT TWIN 40	10.95	10.10	162	OCT20060	CCTURA KCOL KLAMP #6	5.95	5.65	163
OCT16035	CCTURA MCTOR MOUNT 60 MULTI	5.45	5.20	162	OCT20070	CCTURA KCOL KLAMP #7	5.95	5.65	163
OCT16040	CCTURA MCTOR MOUNT CMNI 60	4.15	3.95	162	OCT20075	CCTURA BRASS WATER SCOOP #71	1.95	1.85	163
OCT16045	CCTURA MCTOR MOUNT 5-55	6.55	6.20	162	OCT20080	CCTURA KCOL KLAMP #8	5.95	5.65	163
OCT16050	CCTURA MCTOR MOUNT 5-60	6.90	6.55	162	OCT20090	CCTURA KCOL KLAMP #9	5.95	5.65	163
OCT16055	CCTURA MCTOR MOUNT SLANT 60	6.55	6.20	162	OCT20100	CCTURA KCOL KLAMP #10	5.95	5.65	163
OCT16060	CCTURA MCTOR MOUNT SWIFT SWITCH	15.50	13.95	161	OCT20110	CCTURA KCOL KLAMP #11	5.95	5.65	163
OCT16070	CCTURA MCTOR MOUNT TWIN 60-M	16.25	14.65	162	OCT20120	CCTURA KCOL KLAMP #12	5.95	5.65	163
OCT16075	CCTURA MCTOR MOUNT 6-60	8.20	7.80	162	OCT20130	CCTURA KCOL KLAMP #13	5.95	5.65	163
OCT16078	CCTURA MCTOR MOUNT 6-90	10.25	9.45	162	OCT20140	CCTURA KCOL KLAMP #14	5.95	5.65	163
					OCT20500	CCTURA STARTER BELT	3.45	3.30	163



## PRATHER

### The Prather Deep Vee



The Deep Vee boat is one of the most popular types of RC boats. The ability of a deep vee to take rough water will deliver consistent performance for both the competition and fun boater. With a Prather Deep Vee the hull and deck are factory joined for ease of assembly and true alignment. The epoxy fiberglass construction provides strength and

warp resistance. The advanced hull design combined with a proven running gear package delivers performance and reliability. Some other features are: 3/8" hard maple motor mount rails, plywood bulkheads, form flotation and complete instruction booklet with photos.

#### 40" DEEP VEE SPECIFICATIONS

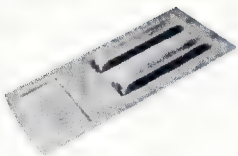
Length: 40"  
Engine: .40 to .65  
Radio: 2 channel

This is the boat that Sarah Purcell of the Real People TV Show drove at the Second Annual Boaters Regatta. Sarah along with the Real People TV production crew recorded the activities to be televised in the 1980 Fall season (probably in December). This boat was also featured on the August 1980 cover of RC Modeler magazine.

#### 31" DEEP VEE SPECIFICATIONS

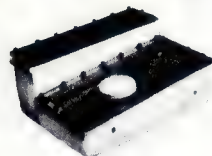
Length: 31"  
Beam: 9 1/2"  
Engine: .21 (3.5 cc)  
Radio: 2 channel

#### HATCH COVER



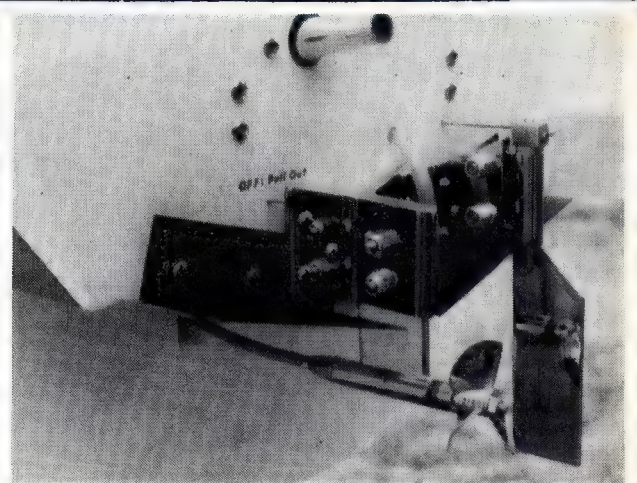
The Hatch Cover adds scale appearance. It prevents swamping from other boats rooster tails or from rough water. The Hatch Cover comes complete with mounting hardware using a dzus fastener connector. Available in two sizes for the DV20 or DV40.

#### RADIO BOX



The Radio Box is especially designed for Deep Vee boats such as the Prather Deep Vee. It features epoxy-glass construction, hardwood rails, aluminum nut plates and lexan covers. The low profile design allows clearance for the tuned pipe to stay inside the hull. Available for the DV20 or DV40.

#### RUNNING HARDWARE KIT

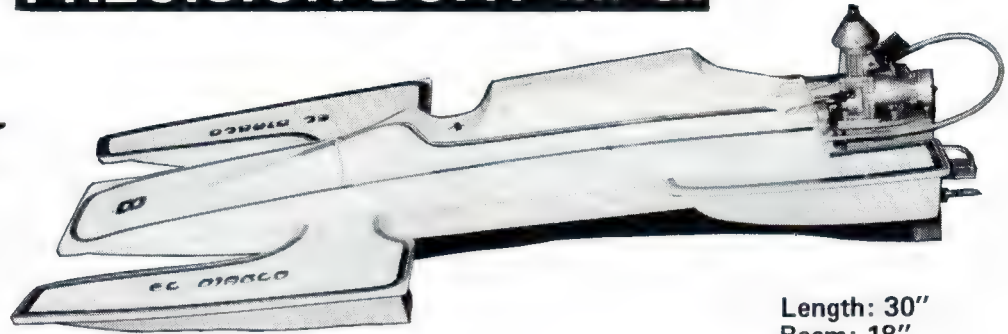


This kit features two designs: one for DV 20 and one for DV 40 boats. The hardware package contains: complete strut assembly, strut brackets, stainless steel rudder, rudder brackets, rudder housing with needle bearings, rudder arm, stainless steel trim plates, and much more.

PRA20020	PRATHER 1020	HARDWARE - DV40	79.95	67.95	167
PRA20050	PRATHER 1050	HARDWARE - DV20	69.95	59.45	167
PRA28100	PRATHER 8100	RADIO BOX-CV20	19.95	17.95	167
PRA28101	PRATHER 8101	RADIO BOX-CV40	19.95	17.95	167
PRA70200	PRATHER 1030	31" DEEP VEE 20	94.95	77.95	167
PRA70300	PRATHER 1000	DEEP VEE 40-60	109.95	89.95	167
PRA70310	PRATHER 1010	DECK COVER-DV40	19.95	17.95	167
PRA70340	PRATHER 1040	DECK COVER-CV20	18.95	17.05	167

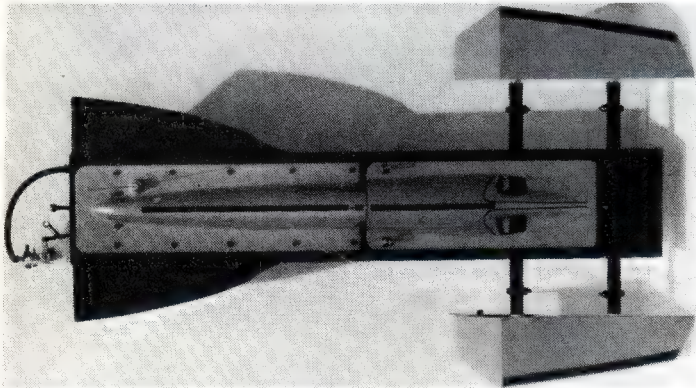


## PRECISION BOAT MFG.

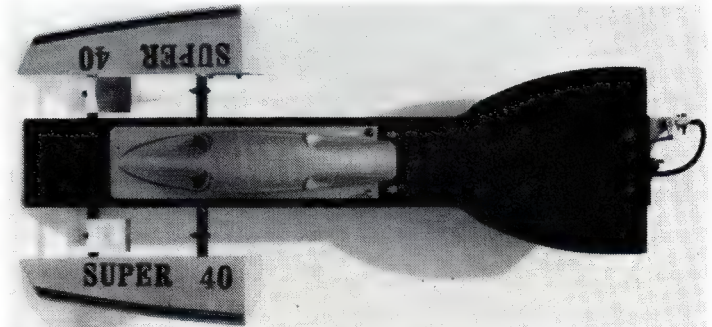


Length: 30"  
Beam: 18"

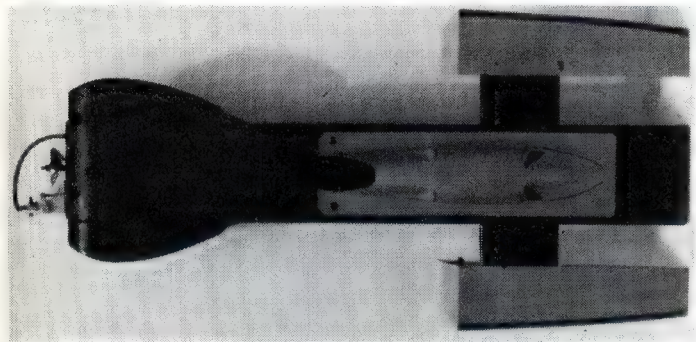
Now, from Precision, makers of the famous Crapshooters, comes the new ABS El Diablo Outboard. This fantastic boat has been competition tested and is predicted to be one of the "hottest" outboards ever! Due to ABS plastic construction, this kit requires only about one or two evenings to assemble—and requires no painting! Uses a 2 channel radio and a .21 outboard engine. Includes performance tips and illustrated step-by-step instructions.



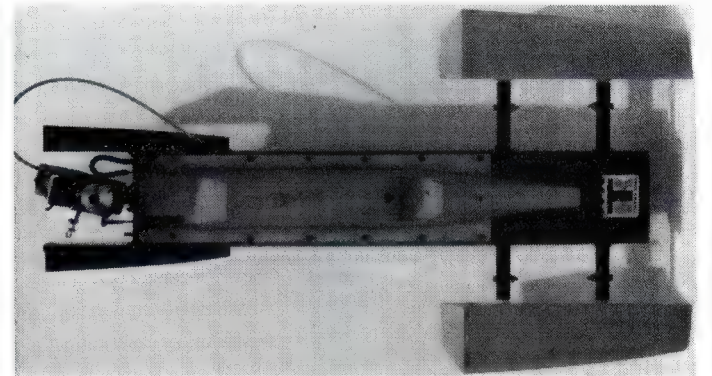
CRAPSHOOTER SUPER 20  
length: 34 "  
weight: 5 lbs.



CRAPSHOOTER SUPER 40  
length: 36"  
weight: 6 - 7 lbs.



CRAPSHOOTER SUPER 60  
length: 41"  
weight: 9 lbs.



EL DIABLO DELUXE OUTBOARD  
length: 34"  
weight: 4½ lbs.

**NOW AVAILABLE—The Precision  
Crapshooter 90 with hardware**

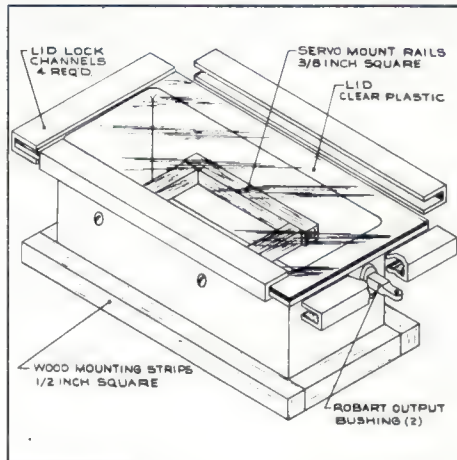
Crapshooter boats have one of the best win record histories ever. All three Crapshooter boats pictured above were the 1978 I.M.P.B.A. National Champions. These are for the serious competitor and have the latest modifications identical to the three national champions. All boats that Tower will be stocking will have the hard building work already done. The hull and sponsons are already EXPERTLY built with unbelievably high quality. All you do is assemble, paint, and install radio and engine. Every kit shown including the El Diablo Outboard comes with COMPLETE hardware. Listed below is the hardware that comes in each Crapshooter:

Gas tank kit, six 10/32 brass inserts for motor mounts, six 10/32 allen head machine screws for motor mounts, one turn fin kit, one 2/56 push rod and quick link, one 4/40 push rod and quick link, one 12" length 5/32 water pick up tube, radio hatch cover seal tape, ten 4/40 brass inserts for hatch cover, ten 4/40 x ½" allen head machine screws, four 6/32 nylon nuts for rudder assembly, four 6/32 x 5/8" allen head machine screws, one 24" hardened drive shaft, one 10/32 shaft nut, one piece 6" fuel line tubing, one piece 12" water pick up tubing, one antenna bracket, one aerodynamic fiberglass cowl, and a complete rudder assembly.

PRE70020	PRECISION CRAPSHOOTER 20 W/HW	217.00	199.65	168	PRE70120	PRECISION WOOD EL DIABLO-DLX.	150.00	137.95	168
PRE70040	PRECISION CRAPSHOOTER 40 W/HW	235.00	215.95	168	PRE70121	PRECISION ABS EL DIABLO	99.95	75.95	168
PRE70060	PRECISION CRAPSHOOTER 60 W/HW	253.00	232.75	168	PRE70090	PRECISION CRAPSHOOTER 90 W/HW	270.00	248.95	168



## RAM

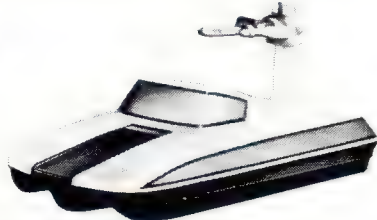


An inexpensive line of radio boxes to protect your valuable equipment in all marine installations. Quick interchange between all your models. 4 popular sizes, all 2 1/4" deep to hold the bulkiest of installations. Each package includes: 2 Robert output bushings, 1 molded radio box, 1 clear plastic lid, 4 lid lock seals, and full instructions and installation tips.

### CHARGER

For 049-10 Aircraft Engines  
Length 18 Inches

A.R.F.  
(Almost Ready To Float)



#### QUALITY & PERFORMANCE

- All Molded Plastic**  
No further cutting or shaping needed
- Only 5 Structural Parts**  
Fewer parts means faster assembly
- Assembles in 18 Minutes**  
You can build your second one even faster
- No Painting Necessary**  
Can be left gleaming white or painted with epoxy or polyurethane
- All Linkage Hardware Included**  
Nothing extra needed to hook up servos
- Step by Step Photo Instructions**  
Even the "first time" modeler will have no problems
- Virtually Unsinkable**  
Instructions detail a simple flotation chamber
- Proven Tri-Hull Design**  
Inspired by famous full size boats
- Uses any 2 Channel Radio**  
The radio compartment is 8 1/2" long, 7 1/4" wide, 3 1/2" high
- Simple Air Prop Drive**  
Perfect for the beginning modeler
- No Expensive Marine Hardware**  
Keeps the first radio model within the budget of more modelers
- For 049-10 Aircraft Engines**  
Holes are molded in pylon for Cox Golden Bee R/C and Kraft 09 mount to fit larger engines. Pylon can be drilled for other mounts & engines

Perfect For  
Quickie 18 Sport Racing

Simple Club Rating Rules: 1. 18" or larger in hulls, 2. Course to suit the boat, 3. Class A 1449, Class B 051-10, Class C 05 electric

RAM20350	RAM #35	RA-BOX	3"X5"X2.25"	9.95	8.95	169
RAM20360	RAM #36	RA-BOX	3"X6"X2.25"	9.95	8.95	169
RAM20450	RAM #45	RA-BOX	4"X5"X2.25"	9.95	8.95	169
RAM20460	RAM #46	RA-BOX	4"X6"X2.25"	9.95	8.95	169

## O Bee 30 Sport Trainer

A.R.F.  
(Almost Ready To Float)

Length 30"



#### QUALITY & PERFORMANCE

- Molded & Trimmed Plastic Parts**  
No further cutting or shaping needed
- Only 5 Structural Parts**  
Fewer parts means faster assembly
- Assemble in One Evening**  
Run it tomorrow
- Virtually Unsinkable**  
Instructions detail a simple flotation chamber
- Molded Radio Mounting Box**  
Can be made waterproof
- Molded Fuel Tank Mount**  
Simplifies tank installation
- Radio & Engine Can Be Installed After Model Is Completed**  
No need to purchase all items at once
- Super Flex Plastic**  
High Impact - Vibration Absorbing
- Inspired by famous full size boats**
- Step by Step Photo Instructions**  
Even the "first time" modeler will have no problems

Use Any 2 Channel Radio - Designed For .15 -.21 Outboard Engines

## QUICKEE 18

A.R.F.  
(Almost Ready To Float)

For 049-10 Aircraft Engines  
Length 18 inches



#### QUALITY

- All Molded Plastic**  
No further cutting or shaping needed
- Only 5 Structural Parts**  
Fewer parts means faster assembly
- Assembles in 18 Minutes**  
You can build your second one even faster
- No Painting Necessary**  
Can be left gleaming white or painted with epoxy or polyurethane
- All Linkage Hardware Included**  
Nothing extra needed to hook up servos
- Step by Step Photo Instructions**  
Even the "first time" modeler will have no problems

#### PERFORMANCE

- Virtually Unsinkable**  
Instructions detail a simple flotation chamber
- Tunnel Hull for Speed & Stability**  
Shaped for maximum speed
- Uses any 2 Channel Radio**  
The radio compartment is 8 1/2" long, 7 1/4" wide, 3 1/2" high
- Simple Air Prop Drive**  
Perfect for the beginning modeler
- No Expensive Marine Hardware**  
Keeps the first radio model within the budget of more modelers
- For 049-10 Aircraft Engines**  
Holes are molded in pylon for Cox Golden Bee R/C and Kraft 09 mount to fit larger engines. Pylon can be drilled for other mounts & engines

Perfect For Quickee 18 Sport Racing

Simple Club Rating Rules: 1. 18" or larger in hulls, 2. Course to suit the boat, 3. Class A 1449, Class B 051-10, Class C 05 electric

RAM70100	RAM QUICKIE 18	24.95	19.95	169
RAM70200	RAM CHARGER	24.95	19.95	169
RAM70300	RAM CH BEE 30	49.95	38.95	169

## SPICKLER

# RASCAL

New from Glen Spickler, a quick and easy-to-build tunnel hull. This kit features a molded plastic turtle-deck, precision cut balsa and plywood parts, foam sponsons, some hardware and plywood sheeting. Requires a .21 (3.5cc) outboard and a 2 channel radio.

29 1/2" LENGTH  
13" WIDTH

SPI70100 SPICKLER RASCAL TUNNELHULL

55.00 43.95 169



## MODEL BOAT KITS

# STERLING

## PUDDLE JUMPER

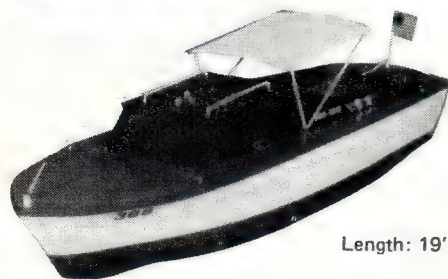
R/C Air Boat/Amphibian

LENGTH 18½", BEAM 7½", FOR .049 ENGINES



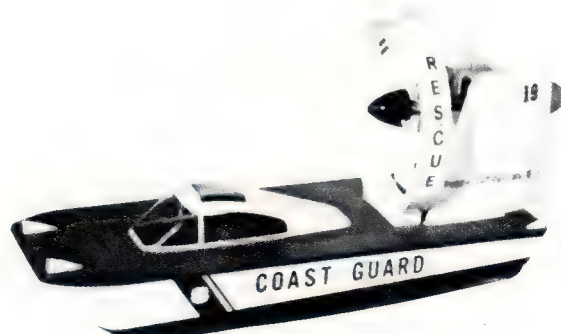
Designed expressly for 2 channel R/C (plenty of room for just about any R/C) and .049 throttle control engine, this amazing air boat/amphibian will give you more pure pleasure than you can imagine—it's equally at home in a swimming pool or pond as well as a school yard or any smooth surface. It's so easy to build—both the rugged plastic hull and cabin are precisely formed. Main inner structure and deck are accurately die-cut plywood as is the balsa. Included is nylon motor mount, easy to follow step by step plans, decals, hardware, etc.

## Kris Kraf



Length: 19"; Beam: 6¾".

It's easy to build. the tough plastic hull is precisely formed. Main inner frame, deck and cabin parts are all die-cut plywood. This amazing 19" boat will give more pure pleasure than you can imagine—at home, in the pool, or pond or on the mantelpiece. Designed for almost any .049 gas engine or electric motor with plenty of room for 2 channel R/C if desired. Kit includes decal, and easy to follow step by step plans.



### MK II PUDDLE JUMPER

Designed for 2 channel R/C or tether control and .15 to .35 engines. Maintaining top quality and simple construction. All balsa and plywood parts are accurately die-cut, with precision vacuum formed plastic hull and cabin. Hardware package includes R/C hardware, full sized plans, plus decals for Sport model or Coast Guard version.

STET0026	STERLING 8-26 PUDDLE JUMPER	21.95	17.55	170
STET0027	STERLING 8-27 PUD. JUMPER MKII	47.95	35.95	170
STET0028	STERLING 8-28 KRIS KRAF	19.95	16.95	170

## WESTCOAST MARINE

### DV-20



### STING RAY DEEP VEE

The STINGRAY DEEP VEE features hand-laminated construction and is manufactured with the latest techniques using the highest quality materials. The hull and deck are factory joined and trimmed, after which the complete boat is polished. Length: 32". Width: 11". Engine: 3.5 cc inboard or outboard. Requires a 2 channel radio.

WEST0020	WESTCAST DV-20 STING RAY	59.95	47.95	170
WEST0040	WESTCAST DV-40X FORMULA VEE X	99.95	79.95	170

### DV-40X



### FORMULA VEE X

This boat currently holds all NAMBA records in its class and is capable of speeds of 60 MPH. Features hand-laminated construction, built to exacting standards and the finest quality materials available. The engine rails and bulkheads are 5 ply aircraft grade plywood and factory installed to insure hull trueness and proper alignment. Length: 38". Width: 11". Engine: .40 to .60. Requires 2 channel radio.



If you're just getting started in R/C, but aren't terribly interested in airplanes (or just hate seeing them crash), then maybe R/C cars are your thing.

Contributing to the growth of the popularity of R/C cars, was the introduction of scale R/C cars like the ones brought out by MRC. Their initial offering, the 934 Turbo Porsche, captured both the new and the experienced modeler's imagination. Soon other cars were introduced: the Tyrrell 6-Wheeler, 935 Martini Porsche and FMC combat vehicle. Now the line includes the Lamborghini Cheetah, an all-terrain vehicle, and the Lamborghini Countach — a car that is competitive in R/C electric racing circles.

A little off the beaten path, are the MRC tanks. They offer a World War II American tank, the Sherman; a modern West German tank, the Leopard; and a World War II German anti-aircraft tank, the Gepard "Flakpanzer." The tanks have fully operational tracks, which are controlled by a special clutch mechanism.

In competitive racing cars, the main brands are Associated and Bolink, both leaders in the R/C car industry.

Associated became known for their gas-powered cars for 2-channel radios and .10-.21 engines. These cars are 1/8 full-size, and can really move out! The cars are fully competitive as offered, you add engine and radio (or a few more things if you get the R/C 100). The R/C 12E car is their offering in the 6-cell electric car field. This car is also very competitive, as offered — you add radio and driving skill.

Latrax offers many cars. The Alpha and Mustang are more like toys than competitive R/C cars, but they are great for getting young children started, since they can operate these cars while unsupervised. The Latrax Corvette is a fully-competitive R/C 1/12 scale electric car which comes with a Latrax 2-channel R/C system. This is an excellent car for the money.

Bolink offers their assembled Performance car for all-out 1/12 scale competition. This car is also available with the Futaba 2F 2-channel radio installed. For those who like to build and save money Bolink provides the unassembled Econo Performance car at a great price.

Peerless makes both 1/12 and 1/20 scale electric R/C cars. Both versions come assembled. The 1/20 version includes an electronic speed control that plugs right into a Futaba receiver. All you need to add is a 2-channel radio with one servo and go racing. Both the 1/12 and 1/20 cars come with nicad rechargeable batteries included and are priced unbelievably low.

A field that is growing rapidly is that of off-road vehicles. MRC has their extremely popular electric Cheetah and their Baja buggies, the Rough Rider and Sand Scorcher. These kits are scale and precisely detailed for realistic appearance and performance. Latrax has a new pick-up truck, Precision makes the Big Thunder off-road vehicle and 18-wheeler semi, Shinsei makes the Firefox, and Bolink makes the Diggers. All of these are electric powered vehicles. Leisure Electronics imports the .20 glow engine powered Sigma-Ace dune buggy which obtains speeds in excess of 40 mph and goes anywhere.

In R/C car racing, there are many classes, depending upon experience and body style. You'll also find that both road courses and ovals are used. The National Sanctioning body is R.O.A.R.

As you gain proficiency in running your R/C cars, you'll find that your level of participation will increase. Racing is where the action is! The columns in the R/C magazines will give you plenty of information.

Hope your track is smooth and clean.

New in this catalog are a large variety of accessories and parts for the electric cars by Bolink and Associates. These parts can be used as replacement parts or to enhance the car's performance.

Check out the list — you can get a handling package, weightsaver package, and competition tires and rims. Also available are high performance motors and extra pinion and spur gears. You can select the proper gear/motor combination to make your car a winner.

In addition to car parts, we also have a good selection of 1/8- and 1/12-scale bodies. The 1/8 bodies fit the Associated RC100, RC200 and RC300 cars, and the 1/12 bodies can fit either the Associated or Bolink cars (although you may have to adapt a particular body to the car). Bolink bodies come either painted or unpainted. The Associated bodies are unpainted, except for a few. (More painted bodies will be available later this year.)

If you are interested in R/C car racing, you should write to R.O.A.R. R.O.A.R. is the national sanctioning body for R/C car racing. They will be glad to advise you on racing rules, and the season's racing schedule, and will be eager to lead you to a club that may be in your area.

Their address is:

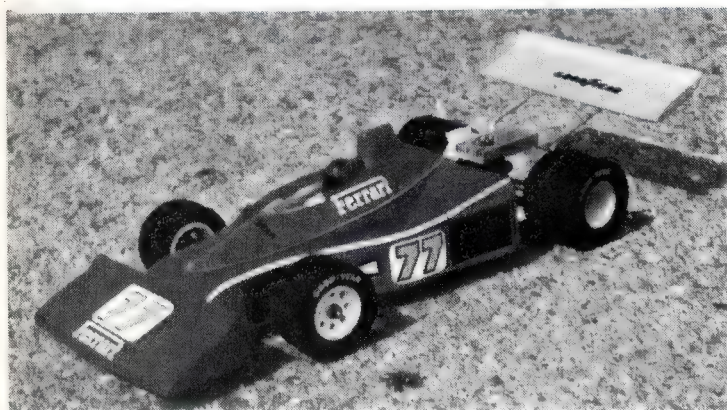
Rick Perry, President  
R.O.A.R.

6561 Mason Ct.

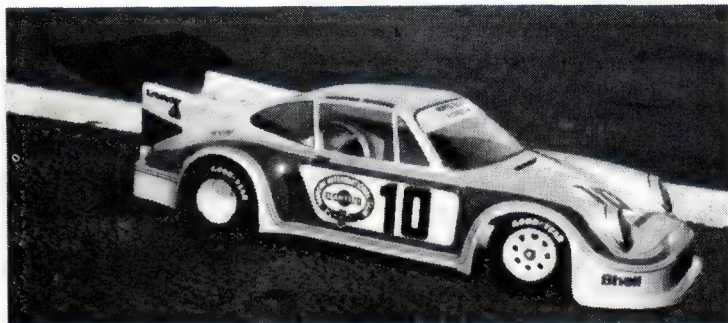
Pleasanton, CA 94566

(This is current as of this catalog printing)





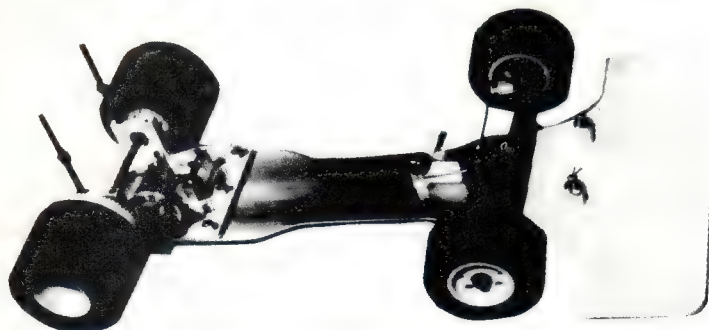
No.2113 FERRARI 312 B3



No.2110 PORSCHE 911 TURBO CARRERA

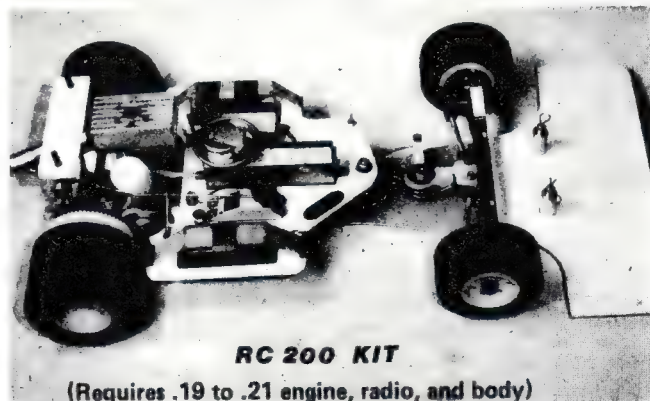
Pictured above are two of several 1/8 scale replacement bodies that are available. All the 1/8 scale bodies that we stock are made of clear Lexan.

SEE PAGE 176 FOR MORE ASSOCIATED STOCK NUMBERS AND PRICES.



(Plastic radio mount and linkages included but not shown)

.19 SIZE RC 100 KIT



RC 200 KIT

(Requires .19 to .21 engine, radio, and body)

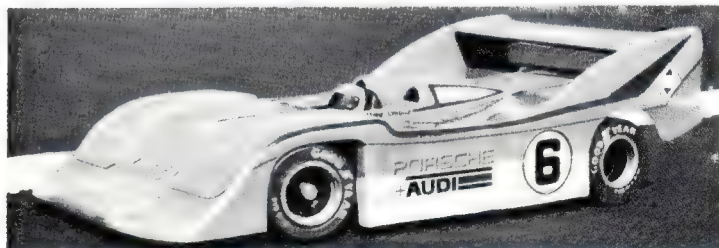
PICTURED READY-TO-RUN LESS BODY

ASSOCIATED'S RC 100 Kit is a great way for beginners to get started in 1/8 scale RC car racing. Featuring a super strong rear power pod with 3/16" thick aluminum plate with rear axle aluminum pillow blocks containing precision ball bearings. Fully adjustable aluminum block motor mounts to accept any size pinion gear. Aluminum flywheel with heavy duty ball bearing clutch assembly. Extra large brake hub which attaches to the gear hub giving all the smooth braking force you'll ever need and also oil free. Racing designed front aluminum chassis plate engineered with the correct amount of chassis flex. The latest in front end assembly design featuring king pins inside the front wheels. Lexan front wheels with sponge tires. Nylon rear wheels with racing rubber. Plastic front bumper with body mounts. Kit also contains plastic for radio mounting tray and all throttle, brake and steering linkage, including steering servo saver. Complete illustrated instructions show you exactly how to assemble the car and tune it just like the team drivers. This kit includes everything but engine, body, radio, and tank.

The 1/8 scale RC 200 Racing Kit is designed for the SERIOUS racer. The BEST car available anywhere. It features all racing components: ball-bearings for rear axle and clutch, fiberglass chassis, 8 mm super-strong axle, aluminum front end, disc brakes, and a new servo saver. This car won the Sports and G.T. Classes at the 1977 ROAR NATIONALS and first 7 places at the WORLD'S CHAMPIONSHIPS. This kit comes complete less engine, body and radio.



GREENWOOD CORVETTE No. 2112



PORSCHE-30KL No. 2109

Pictured above are two of the most popular 1/8 scale bodies. They are made of clear Lexan and are nearly indestructible.

ASC94100	ASSOCIATED RC100 CAR KIT-1/8	125.00	87.50	172	ASC95024	2114L 1/8 BODY-LIGIER MASHATI	19.95	16.95	175
ASC94200	ASSOCIATED RC200 CAR KIT-1/8	195.00	129.95	172	ASC95029	2119L 1/8 BODY-LOTUS 79 FORM I	10.95	9.30	172
ASC95011	2109L 1/8 BODY-PORSCHE 30KL	19.95	16.95	172	ASC97C16	SP16 -AL-HEAD-HEAT SINK-K&B 21	14.00	12.25	176
ASC95012	2110L 1/8 BODY-PORSCHE TURBO	19.95	16.95	172	ASC97C20	SP20 MYLAR DECAL SHEET-1/8 CAR	4.00	3.70	176
ASC95021	2112L 1/8 BODY-GREENWOOD CORVETTE	19.95	16.95	172	ASC97C26	SP26 ELEC.STARTER RUBBER CONUT	2.00	1.90	176
ASC95023	2113L 1/8 BODY-FERRARI 312 B3	10.95	9.30	172	ASC91222	2222 1/8 BALL BEARINGS 1/4X5/8	12.50	10.95	173



**ASSOCIATED**

# THE RC300 IS HERE

**a NEW  
1/8 scale  
R/C race car  
by ASSOCIATED**

**A PROVEN WINNER**

When ASSOCIATED introduces a new car, racers around the world take note; especially when the car decisively wins its debut race. RC300's took 1st, 2nd, 3rd, 5th and 6th place at the 1979 WINTERNATIONALS held in Orlando, Florida. This race has become a traditional proving ground where manufacturers test their new cars for the coming race season. RC300's defeated a field of more than 130 of the fastest cars and drivers in the world.

Winning races is nothing new to ASSOCIATED. Since 1971 our cars have won more 1/8 scale ROAR NATIONAL Road, Oval, and GT events than any other mark; more, in fact, than all other marks combined! !

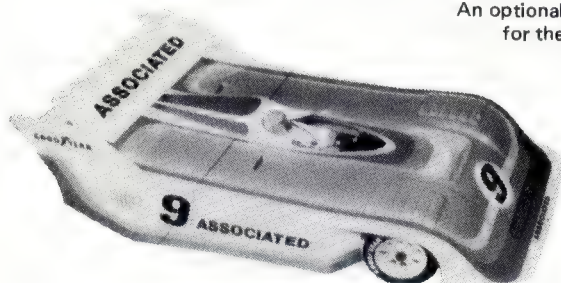
**A TOTALLY NEW CAR**

The RC300 is not only faster than any car we have ever made, but also stronger, easier to assemble, and, most importantly easier to drive. The smoothness and controllable steering of this car will make you a winner.

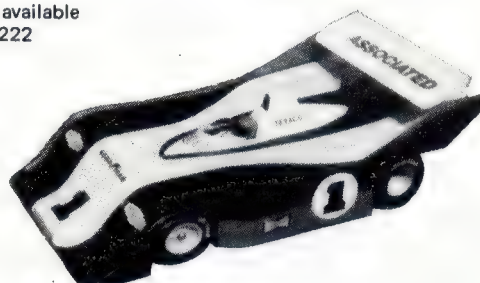
- NEW 8-SPOKE WHEELS
- HI-STRENGTH NYLON FRONT SUSPENSION
- NEW DISC BRAKE
- NEW FRONT END GEOMETRY
- NEW 58, 61, 63 tooth GEARS
- NEW 11, 12, 13 tooth PINIONS

plus many more new features.

An optional rear axle ball-bearing kit is available for the 1/8 scale cars; Stock No. 2222



The new 1/8th scale Tony Cicale CanAm RALT. One of the "new breed" of cars which uses air flow and ground effects to best advantage. This body has a little more front bite than the Porsche 917-30KL and a little less than our ELFIN, so it will work well on most tracks.



**No. 2118 ELFIN**

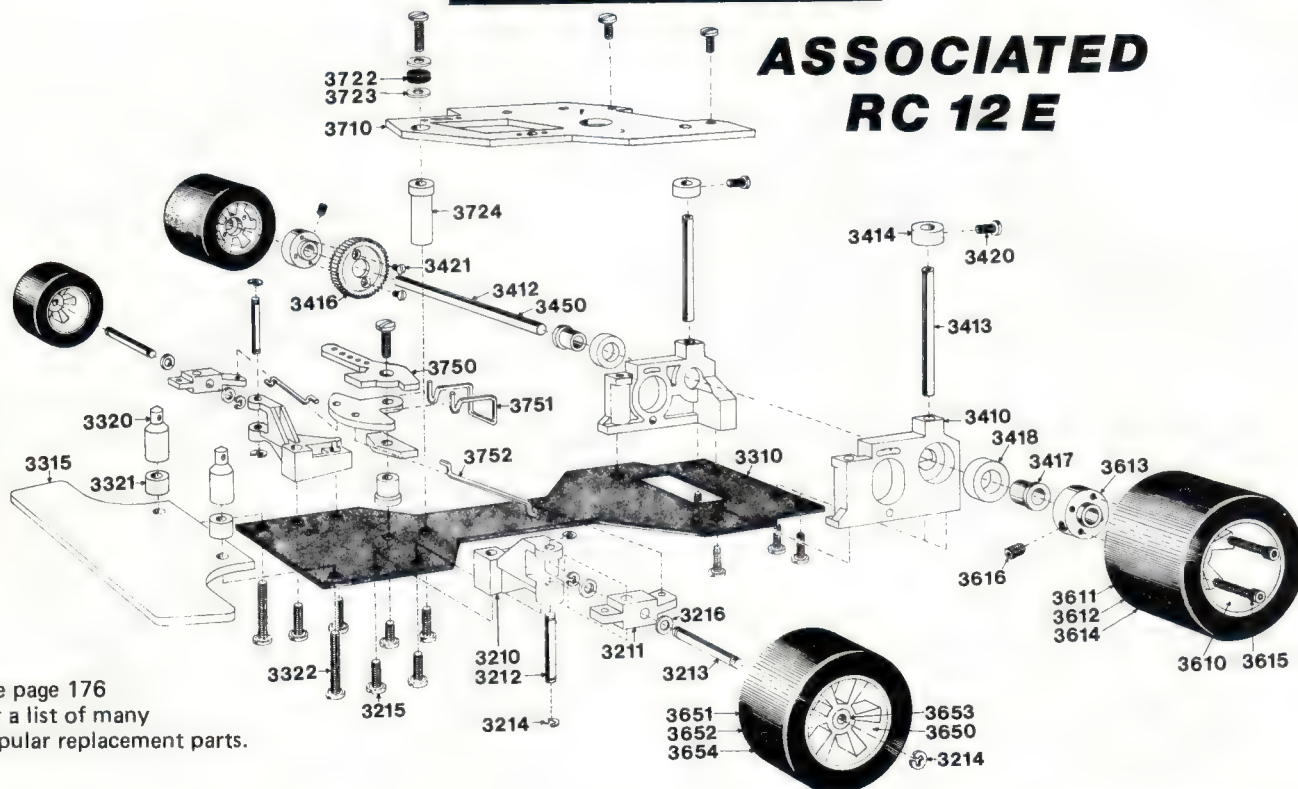
Another popular clear Lexan 1/8-scale body

ASC94250	ASSOCIATED RC300 CAR KIT-1/8	190.00	127.95	173
ASC95028	2118L 1/8 BODY-ELFIN	19.95	16.95	173
ASC95031	2121L 1/8 BODY-RALT	19.95	16.95	173

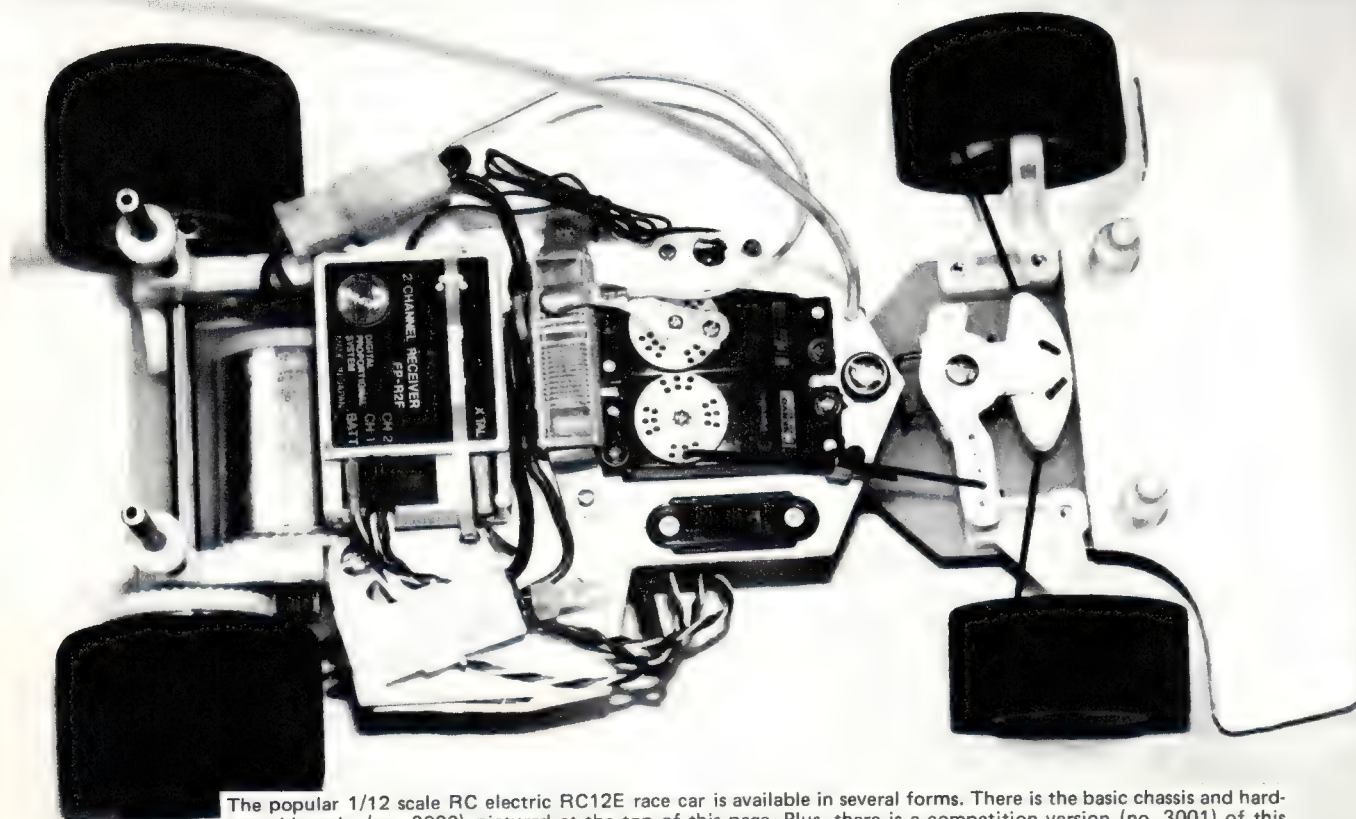


## ASSOCIATED

### ASSOCIATED RC 12E



See page 176  
for a list of many  
popular replacement parts.



The popular 1/12 scale RC electric RC12E race car is available in several forms. There is the basic chassis and hardware kit only (no. 3000) pictured at the top of this page. Plus, there is a competition version (no. 3001) of this basic kit. Next, there is the no. 3012 kit which includes the same components as the no. 3000 kit plus all electrical components (motor, batteries, and wiring). Last, there is a no. 3024 kit which is the same as the no. 3012 except that it is already assembled. Just add body and radio and go racing. This should be the most practical choice for most hobbyists.



## ASSOCIATED

**ASSOCIATED RC12E ELECTRIC RACE CAR KIT—THE PERFORMANCE PROVEN WINNER!** This is the new 1/12 scale electric race car that was the winner of the first 4 places at the 1977 ROAR Nationals. This same car has won countless championships in 1978, 1979, and 1980. In fact, this car has become the most popular 1/12 electric in R/C history.

It has been designed from the ground up to be the ultimate in electric race car competition. With its great handling chassis and extremely rugged design it can make you a winner too! The RC12E basic chassis and hardware kit (No. 3000) is ideal for scratch builders or those wishing to convert an existing electric car into an RC12E. Pinion gear, spur gear, and complete assembly instructions are included. This kit includes everything except radio, body, and electrical components (such as motor, batteries, wiring, resistor, etc.).

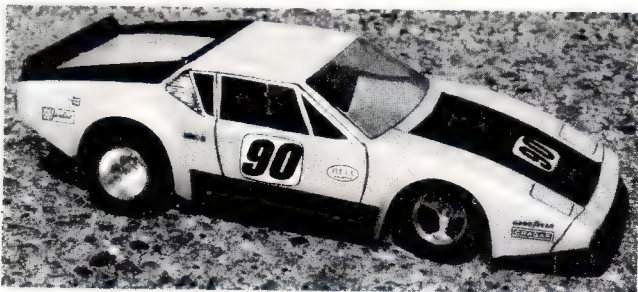
Also available, and most popular, is the RC12E kit No. 3012, which includes engine, 6-cell nicad batteries, charger, and all electrical components. This kit must be assembled; just add body and radio and go racing. Here are some of this kit's outstanding features: precision ground round axle that makes it possible to install optional ball bearings without modification; cam-lock gear mesh adjustment allowing precise, repeatable gear mesh settings for maximum performance; true running, silent gears (optional

pinion and spur gears give a total of 9 different axle ratios); fiberglass chassis; nylon wheels and running gear for durability, light weight and race winning handling; servo saver that prevents damage to steering servo during impact, front end kingpins that are inside the wheels like real race cars, with correct caster, camber, toe-in, and Ackerman compensation; mid-engine design like real race cars (the engine is in the middle to reduce polar moment); radio tray with three point mounting that allows quick removal and chassis flex adjustment; and versatile, lightweight, compact design that allows all body designs to fit. This is truly an experimenters delight! Accessories such as ball bearings, a tubular steel axle, and new body styles, allow RC12E owners to maintain state of the art performance.

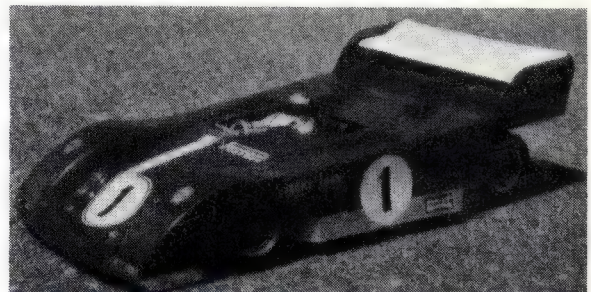
The No. 3001 Competition Basic Kit is available. It is like the No. 3000 Basic Kit, but with tubular axle and special lightweight components. It includes two radio trays designed for ultra mini servos plus the components listed below in the Weightsaver package. About 4 ounces is saved using this kit and is designed for advanced builders.

The No. 3800 Weightsaver Competition Package is available for those who already have an RC12E and want to reduce weight by 2.5 ounces. It includes a tubular axle, aluminum screws, and lightened chassis, bumper, and radio tray. When used with ultra mini servos and light wiring, total reduction can be more than 4 ounces. It's legal for all classes.

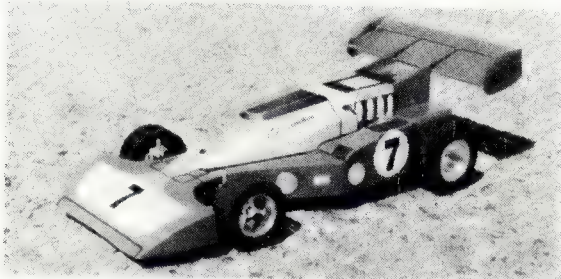
### REPLACEMENT BODIES



No. 3153 1/12 Scale Pantera

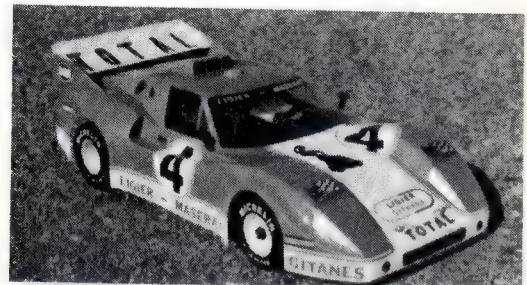


No. 3151 1/12 Scale Ferrari 312 PB

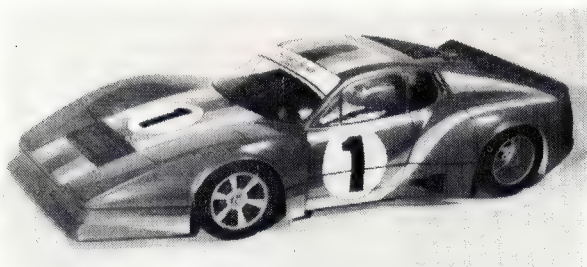


No. 3157 1/12 Scale Foyt's Indy Coyote

All 1/12 scale bodies come unpainted except for the 3151 and 3158, which come in both clear and painted versions.



No. 3159 1/12 Scale or No. 2114 1/8 Scale Ligier Maserati



No. 3158 1/12 Scale Ferrari Boxer



No. 2107 1/12 Scale McLaren M20

ASC94300	3000 BASIC CHASSIS & HDWE KIT	54.00	40.50	174
ASC94301	3001 COMPETITION BASIC KIT	66.00	49.50	174
ASC94312	3012 6-CELL CAR KIT W/O BODY	102.00	73.95	174
ASC94324	3024 6-CELL CAR ASSM. W/O BODY	120.00	85.95	174
ASC94380	3800 WEIGHTSAVER COMP. PACKAGE	22.00	17.95	175



## REEDY MODIFIED 05 COMPETITION CAR MOTOR



**WINNER OF CURRENT AND PAST  
NATIONAL CHAMPIONSHIPS!**

**THE "HOTTEST" MOTOR AVAILABLE  
NOW IN 1/12 ELECTRIC COMPETITION!**

**EACH BALL BEARING MOTOR IS:**

**BALANCED** - each armature is dynamically balanced to insure smooth running and performance.

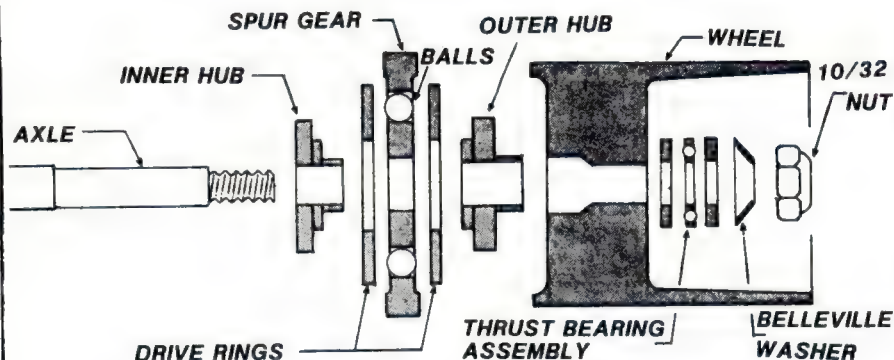
**EPOXIED** - a special high strength epoxy is used to hold the winds in place thus maintaining balance and increasing motor life.

**DYNO-TUNED** - each motor is individually tuned to insure maximum performance and still allow battery life based on eight minute races.

**COMPLETELY BROKEN IN** - all motors are run-in for a minimum period of three hours, giving you a motor ready to install in your race car.

**PLUS, EVERY 05 MOTOR IS HAND  
WOUND BY MIKE REEDY HIMSELF!**

## THE 1/12 DIFF IS HERE!



The differential has been one of the most exciting new developments to come along recently for R/C cars, particularly for the 1/12 electrics. Adding a differential makes the car easier to drive, improves the handling on most tracks, and can even increase your run time per charge.

Associated's 1/12 diff is particularly remarkable for a number of reasons. It weighs LESS than the standard solid axle rear end. It uses stock wheels—the same ones you have on your car now—and the wheels mount directly on the hardened and ground chrome-steel hollow axle, thereby eliminating wear and galling problems. The balls are "captivated" in the gear. They don't fall out when you take the diff apart, so you won't be crawling around on the asphalt looking for a lost ball.

More important than all this is the fact that the thing really works! It took a lot of careful design and testing to achieve what is needed on a 1/12 diff—a smooth differential action in the turns, together with a full "coupling-up" when the car is going straight.

There are three ways that a differential effects a car's handling. First, acceleration thrust is always centered between the rear wheels, whereas on a solid axle car the thrust tends to move to the side of the car that is getting the most traction.

The second effect is to allow the rear wheels to rotate independently. This means the car will turn more freely as the car ENTERS the corner (with zero throttle), and there is less of the tire scrubbing that wastes precious battery charge.

The third effect is torque limitation. A differential limits the torque to that which the inside wheel will accept—the inside wheel actually spins and acts as a release for excess torque.

The improvements are so noticeable that most people never again run without a diff once they've tried it!

ASC95028	2118L 1/8 BODY-ELFIN	19.95	16.95	173	ASC96460	3450 TUBULAR ALLOY STEEL AXLE	4.00	3.60	176
ASC95031	2121L 1/8 BODY-RALT	19.95	16.95	173	ASC96500	3500 05 MOTOR-CLASS A W/CONNTR	11.50	9.75	176
ASC95100	3151P 1/12 BODY-PNTD FER.312PB	15.00	12.75	175	ASC96505	3505 MOTOR CONNECTOR	1.00	.95	176
ASC95102	3158P 1/12 BODY-PNTD FERR BOXR	15.00	12.75	175	ASC96510	3510 REWOUND 05 MOTOR W/CONN.	15.00	12.75	176
ASC95109	3150 1/12 BODY-CLEAR MCLAREN	10.00	8.50	175	ASC96511	3511 REEDY 05 MODIFIED MOTOR	47.00	34.95	176
ASC95110	3151 1/12 BODY-CLEAR FER.312PB	10.00	8.50	175	ASC96610	3610 REAR RIMS W/MTG. SCREWS 2	3.50	3.20	176
ASC95111	3152 1/12 BODY-CLR PORSCH 30KL	10.00	8.50	175	ASC96611	3611 REAR TIRE CONUTS 2	3.00	2.75	176
ASC95112	3153 1/12 BODY-CLEAR PANTERA	10.00	8.50	175	ASC96612	3612 REAR TIRE CONUTS-TRUED 2	4.00	3.70	176
ASC95114	3154 1/12 BODY-CLEAR TRANS AM	10.00	8.50	175	ASC96613	3613 REAR WHEEL HUB 2	5.00	4.60	176
ASC95117	3157 1/12 BODY-CLR INDY COYOTE	10.00	8.50	175	ASC96614	3614 REAR RIM W/TIRES-TRUED 2	9.00	8.30	176
ASC95118	3158 1/12 BODY-CLEAR FERR BOXR	10.00	8.50	175	ASC96650	3650 FRONT RIMS W/BUSHINGS 2	3.50	3.20	176
ASC95119	3159 1/12 BODY-CLR L. MASERATI	10.00	8.50	175	ASC96651	3651 FRONT TIRE DONUTS-MED. 2	2.50	2.35	176
ASC95120	3160 1/12 BODY-CLEAR TOJ	10.00	8.50	175	ASC96652	3651-5 FRONT TIRE DONUTS-SOFT2	3.00	2.75	176
ASC95182	3182 1/12 CLEAR WING W/HWDE.	2.00	1.90	176	ASC96715	3715 NICAD BATTERY PACK 6-CELL	35.00	27.95	176
ASC96200	3200 FRONT SUSPENSION KIT	8.00	7.20	176	ASC96717	3717 NICAD BATTERY PACK 6-CELL	38.50	29.95	176
ASC96207	2207 HOOD PINS-SMALL 6	.49	.45	176	ASC96727	3727 6-CELL NICAD PACK W/CONN.	6.00	5.40	176
ASC96208	2208 HOOD PINS-LARGE 6	.75	.70	176	ASC96730	3730 WIRING HARNESS	1.50	1.45	176
ASC96210	3210 2SUSPENSION ARMS W/SCREWS	3.00	2.85	176	ASC96755	3755 SERVO SAVER W/HARDWARE	2.50	2.40	176
ASC96213	3213 STUB AXLE W/RET. CLIPS 2	2.00	1.90	176	ASC96820	3820 DECAL SHEET FOR 1/12 CARS	3.00	2.85	176
ASC96214	3214 E CLIPS-10	1.00	.95	176	ASC97010	880 AIR CLEANER/VECO196P-CARBS	3.95	3.65	176
ASC96215	3215 8-32X1/2 PANHEAD SCREW 12	1.00	.95	176	ASC97016	SP16 RAC,HEADHEAT SINK-K&B 21	14.00	12.25	176
ASC96310	3310 FIBERGLASS CHASSIS PLATE	7.00	6.30	176	ASC97020	SP20 MYLAR DECAL SHEET-1/8 CAR	4.00	3.70	176
ASC96315	3315 BUMPER	2.00	1.90	176	ASC97026	SP26 ELEC.STARTER RUBBER DONUT	2.00	1.90	176
ASC96324	3324 ALUM. FLAT HEAD SCREWS 16	2.00	1.90	176	ASC97222	2222 1/8 BALL BEARINGS 1/4X5/8	12.50	10.95	173
ASC96400	3400 REAR END KIT	9.00	8.10	176	ASC96454	3654 FRONT RIM W/TIRES-MED. 2	9.00	8.10	176
ASC96415	3415-12 TCOTH PINION GEAR	2.50	2.35	176	ASC96655	3654-S FRONT RIM W/TIRES-SOFT2	9.00	8.10	176
ASC96416	3415-13 TCOTH PINION GEAR	2.50	2.35	176	ASC96663	3652 FRONT TIRE DONUTS-MED. 2	4.00	3.70	176
ASC96417	3415-14 TCOTH PINION GEAR	2.50	2.35	176	ASC96664	3652-S FRONT TIRE DONUTS-SOFT2	4.00	3.70	176
ASC96418	3416-44 TCOTH SPUR GR W/SCREWS	1.00	.95	176	ASC96665	3655 FRONT BALL BEAKINGS 2	12.00	10.50	176
ASC96419	3416-46 TCOTH SPUR GR W/SCREWS	1.00	.95	176	ASC96711	3711 THROTTLE CONTROL RESISTOR	7.50	6.90	176
ASC96420	3416-48 TCOTH SPUR GR W/SCREWS	1.00	.95	176	ASC96712	3712 THROTTLE CONTROL WIPER	1.25	1.20	176
ASC96430	ASSOCIATED 3810 GEAR PULLER	4.00	3.80	176	ASC96713	3713 THROTTLE CONTROL MTG BRKT	1.00	.95	176
ASC96450	3430 1/12 DIFFERENTIAL	15.00	12.75	176					



**BOLINK**

# WELCOME TO GROUP 12 COMPETITION

This Group 12 car was designed by the leading RC race car constructors for organized national and international competition. Make no mistake, Group 12 cars are not mantlepiece displays or children's toys. Group 12 cars are built to be raced.

Also unique to Group 12 competition is the stock class available under R.O.A.R. sanction. Strict rules limiting modifications make Group 12 the most economical form of radio control racing possible.

Beginners and old pros alike can enjoy highly-competitive Group 12 racing from neighborhood parking lots to the National Championships.

Group 12 cars are so named because they are 1:12 scaled, electric-powered race cars. Using a 2-channel proportional radio control system (not included) to control steering, throttle and brake the Group 12 car is driven and performs very much like a full size race car.

R.O.A.R. National Championships have been run for 1:8 scale/gas and 1:12 scale/electric cars in several driver skill and car specification classes on an annual basis since 1969. Join in the fun and competition!

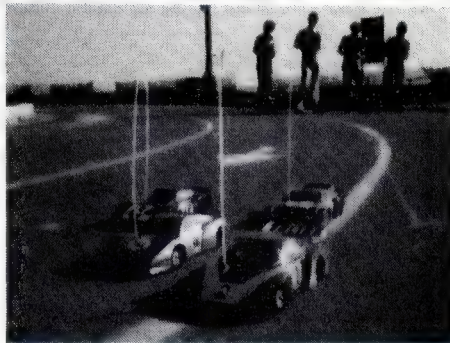
## WHAT IS A GROUP 12 CAR?

Group 12 cars are powered by a 6-cell rechargeable battery pack, enough volts and amps to make speeds over 30 miles per hour possible. Included is a convenient charging cord allowing quick-charging from a 12 volt automobile battery.

Carefully balanced for high-speed handling, the Group 12 car sits on four racing slicks, permanently bonded and ground true on virgin nylon wheels.

The versatile radio tray design of the Group 12 adapts to all popular two-channel systems currently available. Steering servo and throttle/brake servo mounting holes are die-cut for quick installation. Special voltage-dropping diodes are wired in to eliminate the need for a separate receiver battery pack; everything else is factory prewired and soldered.

And the Group 12 car is complete. All you need is a radio control system with 2 servos and you can be racing.



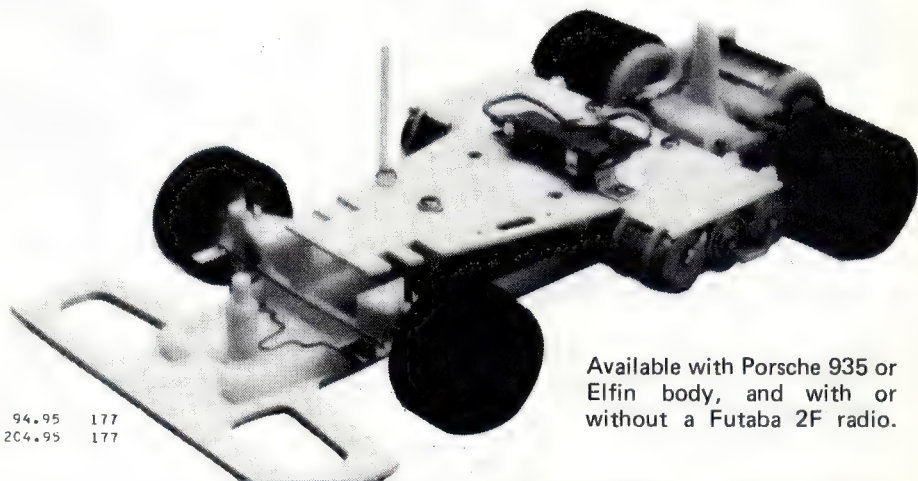
## GO RACING WITH GROUP 12.

This Group 12 car can be prepared, race-ready, by the average person in just a few hours using a screwdriver, a hobby knife and some patience.

Driving the Group 12 car isn't that simple, though. Group 12 cars are extremely quick, and require skill to properly control. Plenty of practice is the secret of RC racing success. Use caution and a large (30' x 30' recommended min.) flat area as you test your reflexes, and race in organized competition frequently.

Using the available FCC frequencies, up to 9 cars can compete together at one time.

Remember, careful maintenance and preparation, combined with driving skill and racing sense are what makes a winner. Put them all together with Group 12 and you could be the next R.O.A.R. National Champion.



Available with Porsche 935 or Elfin body, and with or without a Futaba 2F radio.

# GROUP 12

BCL90012	BCLINK 1012 GROUP 12 CAR	130.00	94.95	177
BCL90112	1412 GROUP 12 CAR W/FUTABA 2F	260.00	204.95	177



**NEW**



## The DIGGERS

● Exciting Off Road Racers ● Tough ● Durable ● Hours Of Fun ● No Need For A Smooth Parking Lot

*Everyone Has An Off Road Track In Their Own Yard*

**GEARED FOR OFF ROAD RACING AND HILL CLIMBING** Can Be Re-Gear'd To Run 25-30 MPH  
**SPECIAL OFF ROAD TIRES** Durable Lexan Chassis With Beefed Up Off Road Suspension  
**FORWARD AND REVERSE SPEEDS** Available in 2 Exciting Styles: Luv Truck/Baja'd VW (Additional Replacement Off Road Bodies Available)  
**BODY MADE FROM "TUFFAK"** 15 Minute Recharging (DC charge cord included)  
**POWERFUL .05 MOTOR** Extra Ground Clearance For Off Road Operation  
**6 CELL ELECTRIC**



BCL9CC90	BCLINK 1090 DIGGER OFFROAD CAR	130.00	94.95	177
BCL90190	BCLINK 1490 DIGGER W/FUTABA 2F	270.00	207.95	177



## BOLINK

# THE PERFORMANCE CAR

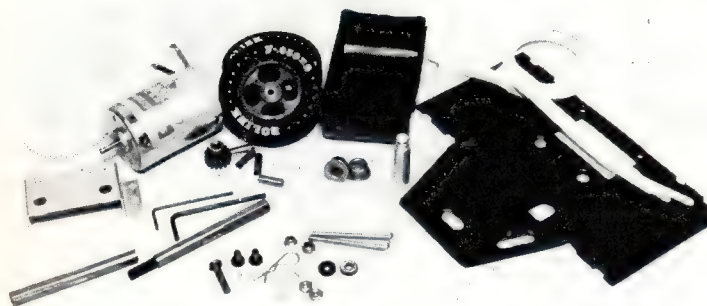
Bolink's Performance Car (No. 1092) comes already assembled and is available in 2 body styles, the Porsche 917-K and the Lamborghini Countach. The bodies come already painted. It is also available with the Futaba 2F 2-channel radio installed (No. 1492).

This 6-cell car was designed from the ground up to be the fastest out-of-the-box electric competition car ever produced. It includes a new powerful motor capable of 35 mph. Also included is: new mid-engine design for better weight distribution, split axle with oilite bearings, new shaker plate design, steel set screw pinion gear, variable braking resistor, narrow "race hard" front tires and 1½ inch wide "Trakker" rears, 15 minute quick charger, "Tuffak" racing body, adjustable tie rod, and Kydex front bumper. This new car combines Bolink's high quality and durability with new engineering for race winning performance.



### ECONO PERFORMANCE CAR KIT - NO. 1352

This is the same as the No. 1092 except: comes in kit form (not assembled); speed in excess of 30 M.P.H.; injection molded, glass-filled chassis, hex axle; proportional speed resistor; hugger front and rear tires; and hand selected motor (R.O.A.R. legal).



**HI-PERFORMANCE KIT - NO. 5009** - (left) completely updates older Bolink cars for more serious racing. It features: race hard front tires, shaker plate, split axle with oilite bearings, new battery covers and necessary conversion instructions. This is good equipment and a great buy.

**HANDLING CONVERSION KIT - NO. 5010** - (not pictured) improves handling of older Bolink cars by providing new mounting setup for radio gear and batteries at a very low cost. It features: shaker plate, new battery covers, mounting hardware complete instructions and chassis tuning tips.

## Challenger Performance Car

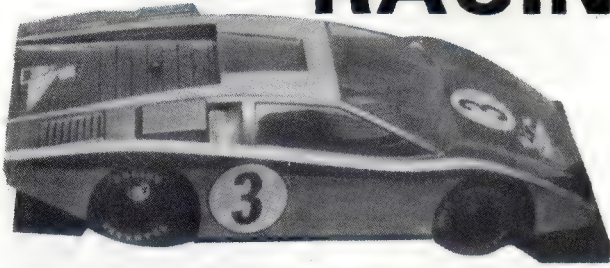
This is an all-new Bolink competition car. It features: ultra super strong lightweight components, front suspension has Ackerman steering with adjustable caster, reversible rear axle blocks can be set up for mid or rear engine without modification, fiberglass chassis designed to give you flex in the right places, equipped with Bolink's limited slip differential, extra gear sizes available, 8" wheel base for maximum handling, race winning shaker plate design, wide racing tires, oilite bearings, wing mount tubes, quick charge motor plug, adjustable motor mount, 6-cell G.E. nicads, DC charge cord and powerful 05 motor. The European version of the Challenger already has a race winning record in France, Switzerland and Sweden. "THE CHALLENGER", an all new race car with a European flair.

BCL90C91	BCLINK 1091 CHALLENGER CAR	.00	.00	178
BOL90C92	BCLINK 1092 PERFORMANCE CAR	130.00	94.95	178
BOL90C93	1352 ECONO PERFORMANCE CAR KIT	59.95	74.95	178

BCL90193	1492 PERFORMANCE CAR W/FUT. 2F	270.00	207.95	178
PCL91C09	BCLINK BL-5009 PERFORMANCE KIT	35.00	27.95	178
BCL91C10	BCLINK BL-5010 HANDLING KIT	6.95	6.25	178



# BOLINK RACING BODIES



LAMBORGHINI COUNTACH BL-2072



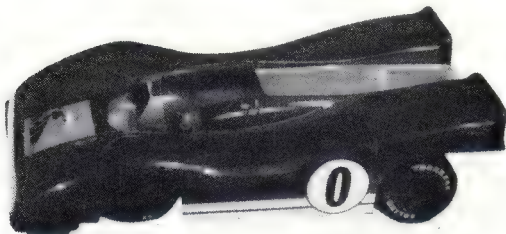
BL-2048 1975 CAMARO



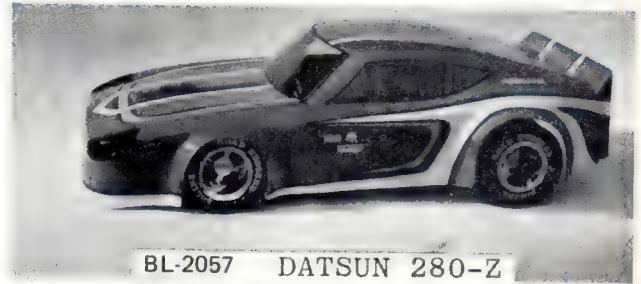
BL-2050 PORSCHE TURBO CARRERA



BL-2054 FERRARI 312B3(T)



PORSCHE 917K BL-2075



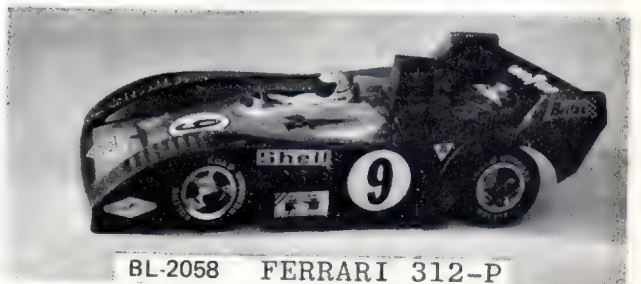
BL-2057 DATSUN 280-Z



BL-2056 IMSA MONZA



BL-2065 PORSCHE 935 TURBO



BL-2058 FERRARI 312-P



SEDAN INTERIOR NO. BL-2701

BCL92750	BL-2075 BCDY-CLEAR PORSCH 917K	10.95	9.60	179
HCL92751	BL-2075F BODY-PNTC PORSCH 917K	15.95	13.95	179

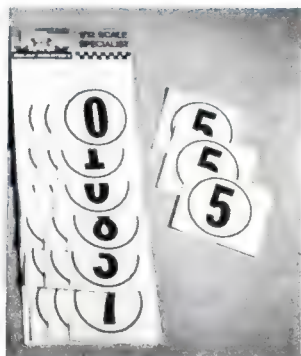
UCL9248C	BL-2048 BCDY-CLEAR 75 CAMARO	10.95	9.60	179
HCL92481	BL-2048P BCDY-PNTC 75 CAMARO	15.95	13.95	179
HCL92500	HL-2050 BCDY-CLR PORSCHE TURBO	10.95	9.60	179
HCL92501	HL-2050P BODY-PNTC POR. TURBO	15.95	13.95	179
HCL92540	HL-2054 BCDY-CLR FERRARI 312	10.95	9.60	179
HCL92541	HL-2054P BCDY-PNTC FERRARI 312	15.95	13.95	179
HCL92560	HL-2056 BCDY-CLEAR MONZA	10.95	9.60	179
HCL92561	HL-2056P BODY-PAINTED MONZA	15.95	13.95	179
HCL92570	HL-2057 BCDY-CLEAR DATSUN 280Z	10.95	9.60	179
HCL92571	HL-2057P BCDY-PNTC DATSUN 280Z	15.95	13.95	179
HCL92580	HL-2058 BCDY-CLR FERRARI CAN-AM	10.95	9.60	179
HCL92581	HL-2058P BODY-PNTC FER. CAN-AM	15.95	13.95	179
HCL92650	HL-2065 BCDY-CLEAR PORSCHE 935	10.95	9.60	179
HCL92651	HL-2065P BODY-PNTC PORSCHE 935	15.95	13.95	179
HCL92701	BL-2701 SEDAN INTERIOR	1.98	1.90	179
HCL92720	BL-2072 BODY-CLR LAMB COUNTACH	10.95	9.60	179
HCL92721	BL-2072P BCDY-PNTC L. COUNTACH	15.95	13.95	179





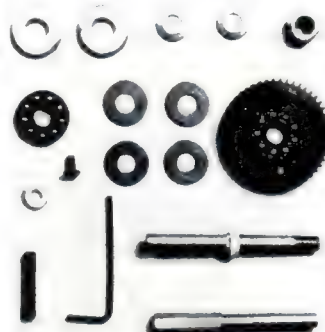
4.8 v. .05 Motor No. BL-4000

Listed on this page are a few of the most needed Bolink replacement parts. See the bottom of this page for stock numbers, prices, and for a list of other optional equipment such as the ultra high performance competition Team Checkpoint .05 motors.



BL-2601 Number & Circle Decals

Quick Change Axle w/Hardware No. BL-5400

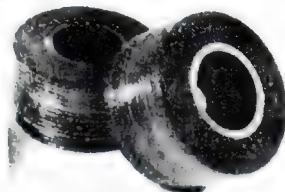


DIFFERENTIALS

This limited slip differential is the latest "trick" in 1/12 scale racing.

The unit is manufactured by Bolink and allows you to use your existing wheels and tires which cuts the cost down.

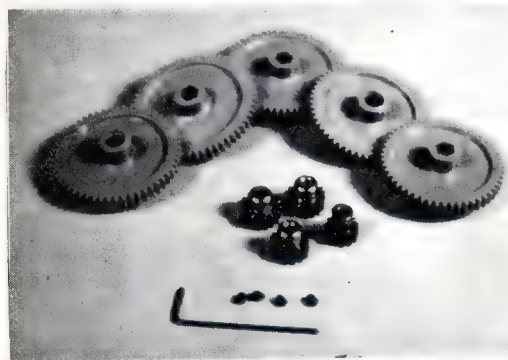
Two versions are available. The 5700 has a 46 tooth spur and fits Associated and Leisure (1/4" O.D. round axle). The 5707 has a 53 tooth spur and fits Bolink and Jerabee (hex axle).



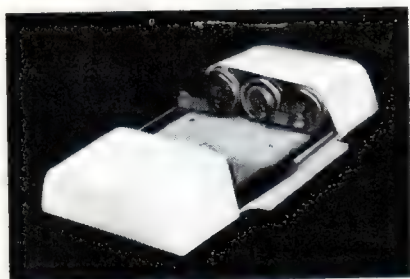
Silicone Indoor Tires - Nos. BL3005 and BL-3172



Soft Indoor Tires - Nos. BL-3004, and BL-3171



Tooth Pinion Gears Nos. BL-5501, BL-5503, and BL-5505  
Tooth Spur Gears Nos. BL-5652 and BL-5654

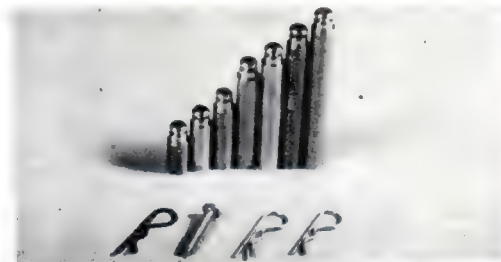


Ni-Cad Battery Pack No. BL-4700

Sub C Ni-Cad Cell No. BL-4701



Speed Resistor No. BL-4601



Body Posts with Hardware Nos. BL-2410 (1/2"), BL-2414 (1"), BL-2417 (1 1/2"), and BL-2421 (2").

BCL93C05	BL-3005	INDOOR FR. TIRES SILCN	11.95	10.45	180
BCL93125	BL-3125	REAR ROAD HUGGER TIRES	9.95	8.95	180
BCL92301	HL-2601	DECALS-NUMBER & CIRCLE	3.60	3.30	180
BCL92400	BL-2400	HOOD PINS 12	1.00	.95	180
BCL92820	BL-2720	LEXAN WING 6 3/4"	.98	.95	180
BCL92821	BL-2721	LEXAN WING 5"	.98	.95	180
BCL92910	BL-2410	BODY POST W/HW 1/2"	.98	.95	180
BCL92914	BL-2414	BODY POST W/HW 1"	.98	.95	180
BCL95220	BL-5220	REPLACEMENT SPINDLES 2	2.99	2.85	180
BCL95221	BL-5221	C-CLIPS FRONT WHEEL 12	1.00	.95	180
BCL95222	BL-5222	C-CLIPS REAR WHEEL 12	1.00	.95	180
BCL95224	BL-5224	SMALL PARTS ASSORTMENT	1.00	.95	180
BCL95252	BL-5252	BRASS AXLE SHIMS .010	.98	.95	180
BCL95253	BL-5253	NYLON AXLE SHIMS-ASSTD	1.00	.95	180
BCL95400	BL-5400	QUICK CHANGE AXLE W/HW	3.50	3.20	180
BCL95434	BL-5434	B-BEARING RE. AXLE KIT	21.95	18.65	180
BCL95501	BL-5501	12 TCOTH PINION GEAR	2.50	2.40	180
BCL95503	BL-5503	14 TCOTH PINION GEAR	2.50	2.40	180
BCL95505	BL-5505	16 TCOTH PINION GEAR	2.50	2.40	180
BCL95652	BL-5652	52 TCOTH SPUR GEAR	1.50	1.45	180
BCL95654	BL-5654	54 TCOTH SPUR GEAR	1.50	1.45	180
BCL95700	BCLINK 5700	DIFF. ASC-LEI	15.00	13.50	180
BCL95707	BCLINK 5707	DIFF. BOL-JER	15.00	13.50	180

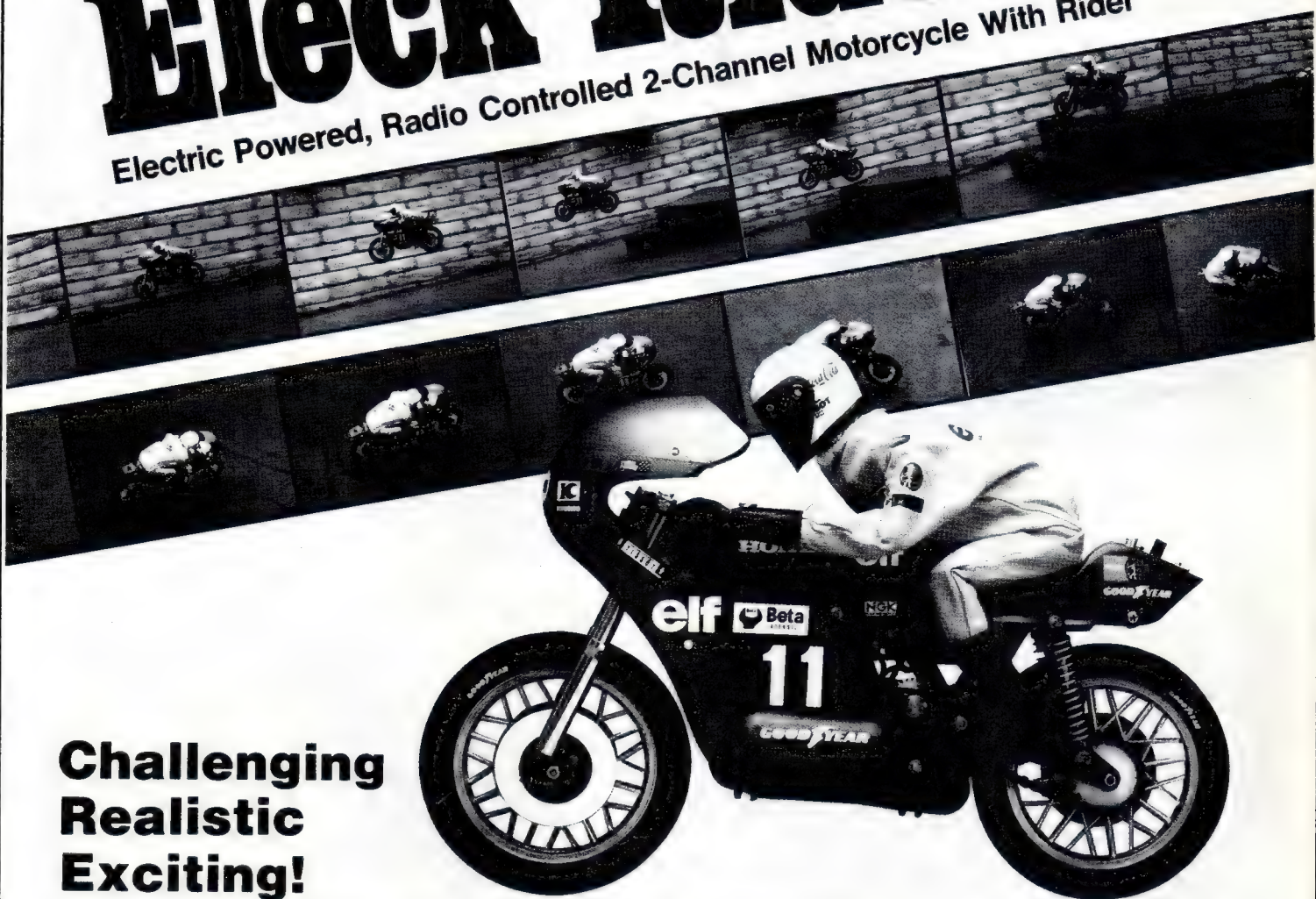
BCL93126	BL-3126	REAR GRABBER TIRES	9.95	8.95	180
BCL93171	BL-3171	INDOOR RE. TIRES-SOFT	9.95	8.95	180
BCL93172	BL-3172	INDOOR RE. TIRES-SILCN	11.95	10.45	180
BCL93202	BL-3202	REAR WIDE RACE SLICKS	11.95	10.45	180
BCL93303	BL-3030	ALUMINUM FRONT RIMS	11.95	10.45	180
BCL93330	BL-3300	ALUMINUM REAR RIMS	13.95	12.20	180
BCL94C00	BL-4000	4.8V .05 MOTOR	11.00	9.60	180
BCL94C10	TEAM CHECKPOINT STAGE 1	MOTOR	14.95	12.95	180
BCL94C20	TEAM CHECKPOINT STAGE 2	MOTOR	18.95	15.95	180
BCL94C30	TEAM CHECKPOINT STAGE 3	MOTOR	29.95	24.70	180
BCL94C40	TEAM CHECKPOINT STAGE 4	MOTOR	49.95	38.50	180
BCL94104	BL-4604	SPEED RESISTOR	6.50	5.85	180
BCL94105	BL-4605	WIPER ARM	1.49	1.40	180
BCL94107	BL-4607	CHARGE CORD	3.95	3.65	180
BCL94129	BL-4629	REVERSE KIT	10.95	9.60	180
BCL94226	BL-4226	MOTOR CAPACITOR .01UF	.49	.47	180
BCL94700	BL-4700	NI-CAD BATTERY PACK	40.00	31.95	180
BCL94701	BL-4701	SUB C NI-CAD CELL	5.50	4.95	180
BCL94775	BL-4775	CHARG. RESISTOR .670HM	1.49	1.40	180
BCL94853	BL-1853	RECEIVER ANTENNA	2.49	2.35	180
BCL92917	BL-2417	BODY POST W/HW 1 1/2	.98	.95	180
BCL92921	BL-2421	BODY POST W/HW 2"	.98	.95	180
BCL93C00	BL-3000	FRT. ROAD HUGGER TIRES	9.95	8.95	180
BCL93C04	BL-3004	INDOOR FR. TIRES-SOFT	9.95	8.95	180



KRAFT

# Kraft's Eleck Rider

Electric Powered, Radio Controlled 2-Channel Motorcycle With Rider



**Challenging  
Realistic  
Exciting!**

- Proportional Speed and Brake Controls
- Special Chassis Balance Control
- Aluminum Die Cast Wheels with Simulated Disc Brakes
- Front Fork Rubber Damper Protects Servos

Kraft's Eleck Rider is the first real innovative change in the sport of radio control in many years. It steers and handles like a real motorcycle with positive control. It is more exciting and satisfying to drive than a radio controlled car, and great fun for beginning or advanced modelers. The average person becomes reasonably accomplished after ½-hour of practice. Whether for oval racing, motocross, road racing, or jumping, this new machine will unquestionably open an entirely new radio control sport. Order P/N 004-014.

Recommended for use with the motorcycle kit is Kraft's KP-2A or KP-2AW 2-channel radio control system. Also required are the rechargeable 6 cell Ni-Cad battery pack (P/N 004-015) and the Ni-Cad battery charger (either the Fast Rate Auto Charger P/N 004-005 or the Home Wall Charger P/N 004-004).

- Genuine Chain Drive
- Patented Steering System
- 13.6" Long, 9.75" High, 3½ Pounds, 25 MPH Maximum Speed

The ready-to-run version of the Kraft Eleck Rider motorcycle comes with a 2 channel proportional Kyosho radio installed. This radio system has dual, closed gimbal sticks; a removable antenna; and 2 standard size servos. Motor battery and a 12 volt quick charger for the motor battery also included. To complete the kit, paint the plastic tank/seat and cowl (paint not included) and apply the decals (which are included). (Radio batteries are not included.)



KRA90000	KRAFT R/C ELECTRIC MOTORCYCLE	89.95	64.95	181
KRA90010	KRAFT READY-TO-RUN CYCLE W/2CH	249.95	165.95	181
KRA90100	KRAFT 004-015 CYCLE BATTERY	24.95	19.95	181

KRA19C04	KRAFT 004-004 CHARGER-SLOW	9.95	8.95	59
KRA19C05	KRAFT 004-005 CHARGER-FAST	24.95	19.95	59



### Corvette LTX-40

#### For the serious RC racing enthusiast.

One powerful machine! It won first place in the 1979 R.O.A.R. Nationals Indoor Track Meet Competition. Sophisticated enough for the professional, yet simple enough for the beginner. A repeated winner against its toughest competition, it continues to impress serious racers all over the country.

- Digital proportional steering
- 20-30 MPH
- 2 channel, 5 function (forward, reverse, right, left, stand)
- Available in four different frequencies
- Race four cars side by side without interference
- 1/12 scale, 16"x6"x4"
- Battery powered — 6 NiCd rechargeable batteries (included) and 8 AA batteries (not included)
- Powerful 750 mw. transmitter with self centering steering wheel and variable speed
- Quiet, clean running heavy duty DC motor.
- Preassembled, ready to race.
- Control from 1/4 mile
- Red, black, yellow, or white indestructible Lexan® body
- Independent floating rear axle
- Independent front suspension
- FCC application included
- 15 minute quick charger included
- Assembled and 100% quality controlled in U.S.A.



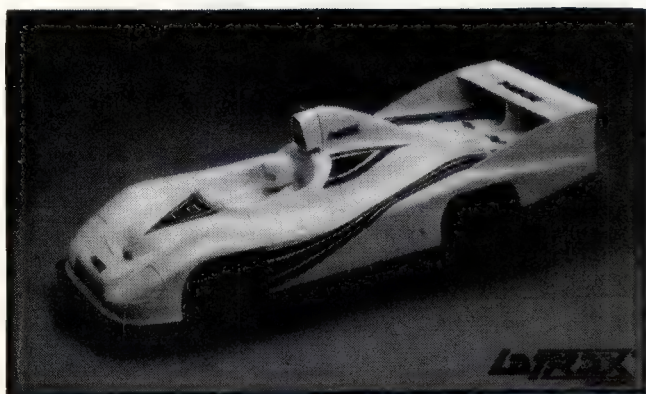
Corvette  
Length: 15.5 in.



Car comes with radio, ni-cad receiver battery and charger.

**OPTIONAL QC - 6 CHARGER WITH AUTOMATIC TIMER IS ALSO AVAILABLE**

**\*RECOMMENDED AS THE PERFECT R/C CAR TO START WITH. SEE PAGE 17.**

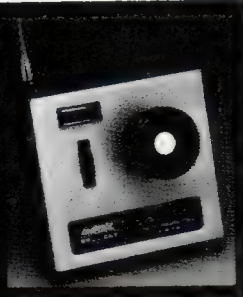


### Porsche LTX-42

#### Designed with racing in mind.

Another powerful racer! The aerodynamics of this body help to give it increased speed and road hugging ability. With a body of injection molded ABS plastic for exacting detail of the full size Porsche. The power teamed with the unique body design is sure to please those requiring European styling.

- Digital proportional steering
- 20-30 MPH
- 2 channel, 5 function (forward, reverse, right, left, stand)
- Available in four different frequencies
- Race four cars side by side without interference
- 1/12 scale, 16"x6"x4"
- Battery powered — 6 NiCd rechargeable batteries (included) and 8 AA batteries (not included)
- Powerful 750 mw transmitter with self centering steering wheel and variable speed
- Quiet, clean running heavy duty DC motor
- Preassembled, ready to race.
- Control from 1/4 mile
- White body with red, blue, tan or green decals
- Independent floating rear axle
- Independent front suspension
- FCC application included
- 15 minute quick charger included
- Assembled and 100% quality controlled in U.S.A.



### Pickup LTX-44

#### A true four wheel drive vehicle.

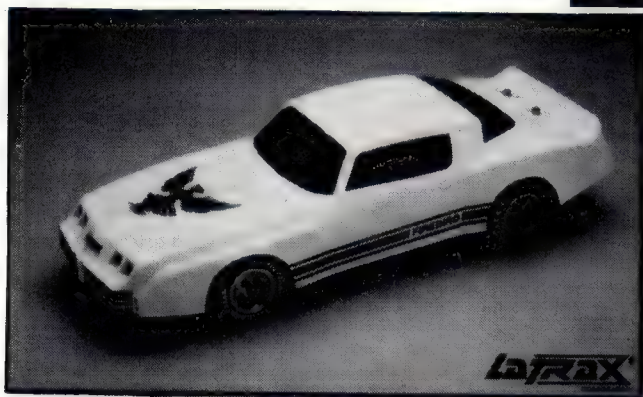
This off-road vehicle is a rugged machine! Powered by all four wheels, it has the ability to tackle any surface and is designed to operate in any dirt. The current trend toward off-road vehicles coupled with the impressive performance of this tough Pickup guarantees the saleability of this item. The variable speed transmitter and three speed transmission will allow small pace or all out racing through sand and over obstacles from 0-12 MPH.

- Variable speed transmitter
- 3 speed transmission
- 2 channel, 5 function (forward, reverse, right, left, stand)
- Powered by all four wheels
- Digital proportional steering
- Has ability to climb a 60 degree angle with proper traction.
- Designed to drive in mud, dirt, or gravel
- Available in four different frequencies
- Black, brown, silver, or white body
- 1/12 scale, 11 1/2"x5 1/2"x5"
- 0-12 MPH
- Battery powered — 6 AA cells and 1.9v (not included)
- Quiet, clean running heavy duty DC motor
- Preassembled, ready to race
- Control from 1/4 mile
- Race four vehicles side by side without interference
- Off-road traction tires
- No FCC license required
- Assembled and 100% quality controlled in U.S.A.





## LATRAX



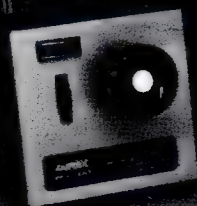
### Firebird LTX-41C

#### A classy alternative to the Corvette.

Carrying all the power and features of the Corvette, this car offers a popular alternative. The bodies are even interchangeable. Modeled after the real Firebird, this car is becoming a fast success.

- Digital proportional steering
- 20-30 MPH
- 2 channel, 5 function (forward, reverse, right, left, stand)
- Available in four different frequencies
- Race four cars side by side without interference
- 1/12 scale, 16 x 6 x 4
- Battery powered — 6 NiCd rechargeable batteries (included) and 8 AA batteries (not included)
- Powerful 750 mW transmitter with self-centering steering wheel and variable speed
- Quiet, clean running heavy duty DC motor
- Preassembled, ready to race
- Control from 1/8 mile
- Red, black, yellow, or white indestructible Lexan body
- Independent floating rear axle
- Independent front suspension
- FCC application included
- 15 minute quick charger included
- Assembled and 100% quality controlled in U.S.A.

SEE  
RECOMMENDATION  
ON PAGE 17.



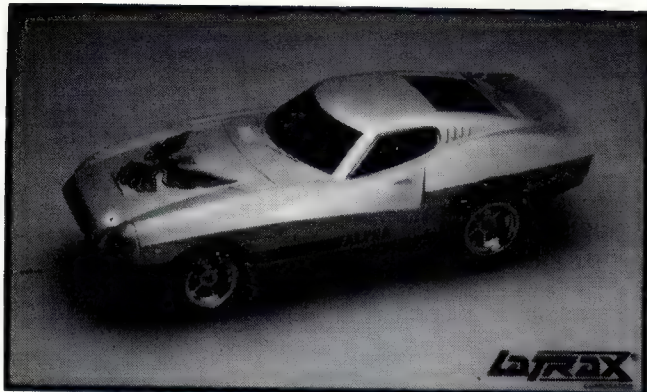
### Formula Firebird LTX-19

#### The ultimate sports car.

The Firebird has become one of the most popular sports cars in America. The Formula Firebird, along with the Camaro, will cover the broadest cross section of the market. Variable speed control makes this car perfect for racing, or for just pure fun.

- Variable speed transmitter
- Digital proportional steering
- 2 channel, 5 function (forward, reverse, right, left, stand)
- Available in four different frequencies
- Race four cars side by side without interference
- 1/12 scale, 13 x 5 x 3 1/2
- 8-10 MPH
- Battery powered — 4 C cells, 1.9V (not included)
- Built-in recharging jack
- Quiet, clean running heavy duty DC motor
- Preassembled, ready to race
- Control from 1/8 mile
- Black, silver, or white body with decals
- Exact replica of the 1980 Firebird
- No FCC license required
- Assembled and 100% quality controlled in U.S.A.

SEE  
RECOMMENDATION  
ON PAGE 17.

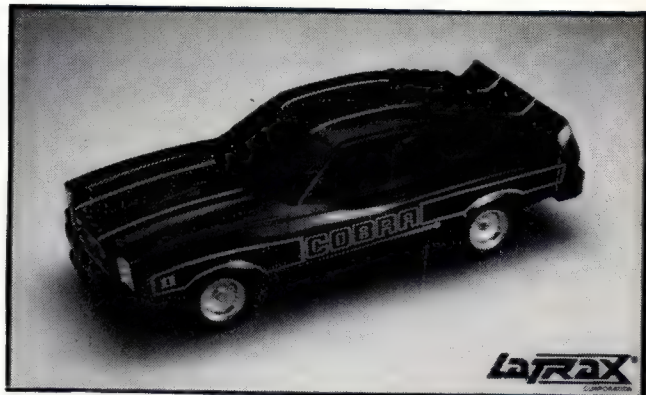


### Alpha CP-011

#### With classic racing car styling.

The Alpha is the original LaTrax RC model and has continued to be a dependable and extremely popular item. The styling has been updated and it is now available in a classy silver body.

- Digital proportional steering
- 2 channel, 5 function (right, left, forward, reverse, stand)
- Available in four different frequencies
- 1/12 scale, 12 x 5 x 3 1/2
- 3-5 MPH
- Battery powered — 4 C cells, 1.9V (not included)
- Built-in recharging jack
- Instant response transmitter
- Quiet, clean running heavy duty DC motor
- Preassembled, ready to race
- Control from 1/8 mile
- Race four cars side by side without interference
- Silver or white body with colored decals
- No FCC license required
- Assembled and 100% quality controlled in U.S.A.



### Cobra CP-012

#### A proven winner.

The Cobra has established itself as the leader in sales year after year. Designed to look just like the real Cobra, it is easy to handle, very dependable, and performs beautifully.

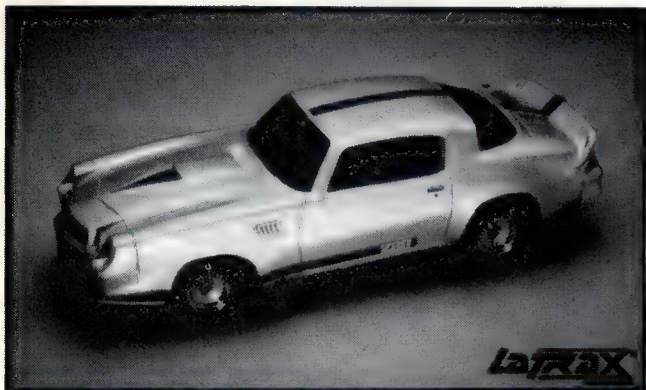
- Digital proportional steering
- 2 channel, 5 function (right, left, forward, reverse, stand)
- Available in four different frequencies
- Race four cars side by side
- 1/12 scale, 12 1/2 x 5 1/2 x 4
- 5-7 MPH
- Battery powered — 4 C cells, 1.9V (not included)
- Built-in recharging jack
- Instant response transmitter
- Quiet, clean running heavy duty DC motor
- Preassembled, ready to race
- Control from 1/8 mile
- White body with red, blue, black decals and black body with gold decals
- No FCC license required
- Assembled and 100% quality controlled in U.S.A.





## MODEL CAR KITS

### LATRAX



#### Camaro LTX-18

##### Topnotch performance with variable speed.

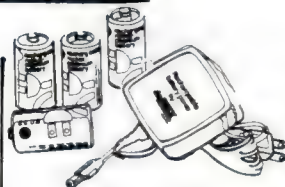
Variable speed control makes this car one of the smoothest running models available. The excitement and popularity of the actual Camaro Z28 has spilled over into the enthusiasm for this smashing look-alike.

- Variable speed transmitter
- Digital proportional steering
- 2 channel 5 function (forward, reverse, right, left, stand)
- Available in four different frequencies
- Race four cars side by side without interference
- 1/12 scale, 12" x 5 x 3"
- 8 10 MPH
- Battery powered - 4 C cells, 1.9V (not included)
- Built in recharging jack
- Quiet, clean running heavy duty DC motor
- Preassembled, ready to race
- Control from 1/4 mile
- White, silver, or black body with decals
- Exact replica of the Camaro Z28
- No FCC license required
- Assembled and 100% quality controlled in U.S.A.



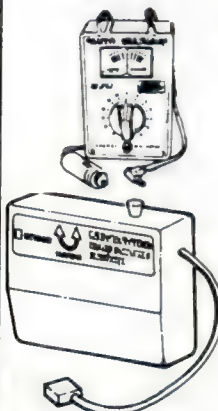
#### RECHARGEABLE BATTERY KIT LTX-06C

GE NiCd battery and charger kit with 4 "C" cells and charger for 110V outlet. Fully charges batteries in 14-16 hours. For use with CP-011, CP-012, LTX-18, LTX-19.



#### QUICK CHARGERS

**QC-6** - 15 minute quick charger with charge/discharge switch, timer, and current meter. Plugs into model and 12V auto cigarette lighter. For use with LTX-31, LTX-31S, LTX-40, 41C, 42



#### BA-005

10 Amp electronic digital proportional variable speed control in plastic case with heavy duty heat sink harness. 3 1/8" x 2 1/4" x 7/8"

LAT20C05	LATRAX	BA-005	SPEED CONTROL	34.75	27.75	184
LAT90C11	LATRAX	CP-011	ALPHA W/RADIO	75.60	54.95	183
LAT90C12	LATRAX	CP-012	CBRA W/RADIO	81.90	59.50	183
LAT90C18	LATRAX	LTX18	CAMARO W/RADIO	87.95	64.95	184
LAT90C19	LATRAX	LTX19	FIREBIRD W/RADIO	87.95	64.95	183
LAT90C40	LATRAX	LTX-40	CORVETTE W/RADIO	220.50	144.95	182
LAT90C41	LATRAX	LTX41C	FIREBIRD W/RADIO	220.50	144.95	183
LAT90C42	LATRAX	LTX42	PORSCHE W/RADIO	226.95	156.95	182
LAT90C44	LATRAX	LTX44	PICKUP W/RADIO	125.95	89.95	182
LAT90C36	LATRAX	LTX-06C	NIC BATTERY CHARGER	22.25	17.95	184
LAT90C36	LATRAX	QC-6	QUICK CHARGER	37.80	28.95	184

## LEISURE ELECTRONICS

Here is the new 1/8 scale Sigma-Ace dune buggy distributed by Leisure Electronics. If you're tired of going in circles on a flat track with the normal R/C car and are ready for a big change of pace then this is for you. All that is required is any .19 size RC engine, a 2 channel radio, and a very minimal amount of assembly time and you're ready for ANY terrain and any challenger.

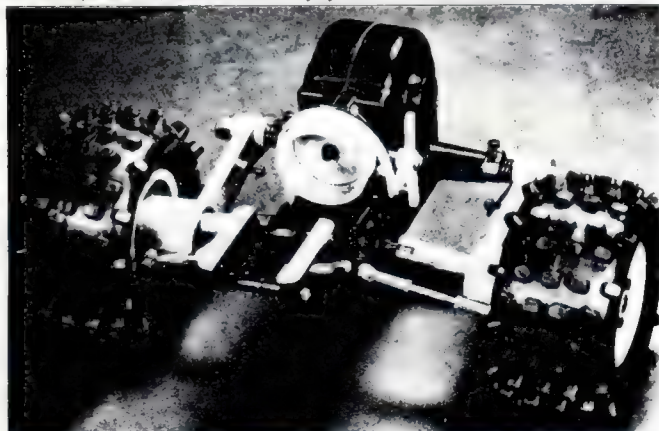
This unbelievably rugged kit comes with most of the important units pre-assembled at the factory which is big plus over other buggies on the market. It features an unbreakable plastic body which can be trimmed or used right out of the box. Its independent rear end suspension and high-traction pneumatic tires produce excellent cornering and allows the driver to tackle the roughest course imaginable. It requires a 2 channel radio with one servo used for steering and the other for throttle. The throttle servo is also hooked up to the brake band over the flywheel. When the throttle is in the idle position the brakes are applied. The brakes are very effective and will lock up the rear end, which makes it great for doing 180 degree spin-arounds. Overall it has to be the toughest, most versatile, most competitive, and most enjoyable vehicle made.

Enya .19 and O.S. Max .20 drop right in; other brands may require filing on mounts to fit.



LE19C000 LEISURE SIGMA-ACE DUNE BUGGY

200.00 169.95 184



Factory assembled rear end for the Sigma-Ace requires only bolting to the chassis.



MRC

# MRC-Tamiya R/C car and tank kits

There are four categories of MRC-Tamiya R/C vehicles, Competition Specials, Off-The-Road Vehicles, Sports Models, and Tanks. All are rugged, responsive vehicles that boast a long list of sophisticated engineering features. These include proportional steering, operating differential gear, forward and reverse speeds, and adjustable gear ratios that let you match your speeds with course requirements and also make it feasible to run indoors as well as outside. All have high detailed scale bodies. Many also feature proportional speed control, adjustable suspension systems, sealed transmissions and more. Perhaps most important, each R/C vehicle provides the roadability and performance handling characteristics that let you feel you're in control of the real thing.

Each kit requires a 2 channel radio (with 2 servos) and batteries. The chart below lists the features and battery requirements for the Competition Specials, Off-The-Road Vehicles, and Sports Models. For information on tanks see page 189.

MRC-TAMIYA R/C CAR SELECTION CHART

Model #	Scale/ Name	Type of Speed Control	Suspension	Gear Ratio Motor Type (Mabuchi)	Battery & Combination Charger Kit Recommended
RA-1201 Sports Car	1/12, Porsche 934 Turbo RSR	2 Speeds Forward; 2 Reverse	Solid Front Rear Spring	RS-360 Economy	RC-9
RA-1202 Sports Car	1/12, Porsche 935 Turbo	2 Speeds Forward; 2 Reverse	Solid Front Rear Spring	RS-380 Medium Speed	RC-9 RC-13 RC-14
RA-1003 Formula I Sport Racer	1/10, Tyrell P-34 Six-Wheeler	2 Speeds Forward; 2 Reverse	Front Spring Solid Rear	RS-380 Medium Speed	RC-9 RC-13 RC-14
RA-1204 Off the Road Vehicle	1/12, FMC XR-311 Combat Vehicle	2 Speeds Forward; 2 Reverse	4-Wheel Wishbone	RS-540 Hi- Torque	RC-9 RC-13
RA-1205 Sports Car	1/12, Lamborghini Countach LP500S	Proportional in Forward, Rev.*	Flexible Chassis	RS-380 Medium Speed	RC-9 RC-13 RC-14
RA-1206 Sports Car	1/12, Martini- Porsche 936 Turbo	Proportional in Forward, Rev.*	Flexible Chassis	RS-380 Medium Speed	RC-9 RC-13 RC-14
RA-1207 Off the Road Vehicle	1/12, Lamborghini Cheetah	Proportional in Forward, Rev.*	4-Wheel Independent Wishbone	RS-540 Hi- Torque	RC-9 RC-13
RA-1208 Competition Special Hi-Speed Race Car	1/12, Countach LP500S Competition Special	Proportional in Forward, Rev.*	Flexible Chassis	R-540 High Speed	RC-13 RC-14
RA-1209 Competition Special Hi-Speed Race Car	1/12, Toyota Celica LB Turbo Competition Special	Proportional in Forward, Rev.*	Flexible Chassis	RS-540 High Speed	RC-13 RC-14
RA-1010 Formula I Sport Racer	1/10, Ligier JS9 Matra	Proportional in Forward, Rev.*	Flexible Chassis	RS-380 Medium Speed	RC-13 RC-14
RA-1011 Formula I Sport Racer	1/10, Ferrari 312T3	Proportional in Forward, Rev.*	Flexible Chassis	RS-380 Medium Speed	RC-13 RC-14
RA-1012 Formula I Competition Special Hi-Speed Racer	1/10, Ligier JS9 Matra Competition Special	Proportional in Forward, Rev.*	Flexible Chassis	RS-540 High Speed	RC-13 RC-14
RA-1013 Formula II Sport Racer	1/10, March 782 B.M.W.	Proportional in Forward, Rev.*	Flexible Chassis	RS-380 Medium Speed	RC-13
RA-1014 Formula II Sport Racer	1/10, Martini MK22 Renault	Proportional in Forward, Rev.*	Flexible Chassis	RS-380 Medium Speed	RC-13
RA-1015 All Terrain Vehicle	1/10, Rough Rider Baja-type Vehicle	2 Speeds Forward, 2 Reverse	4-Wheel Adjustable Independent Suspension	RS-540 High Torque	RC-13 RC-14
RA-1016 All Terrain Vehicle	1/10, Sand Scorcher Baja-type Vehicle	2 Speeds Forward, 2 Reverse	4-Wheel Adjustable Independent Suspension	RS-540 High Torque	RC-13 RC-14
RA-0817 3-Wheel Sport Racer	1/8, B2B Rover Sidecar	2 Speeds Forward, 2 Reverse	Flexible Chassis	RS-380 Medium Speed	RC-13 RC-14
RA-1018 Formula II Sport Racer	1/10, Ralt RT2 Hart 420R	Proportional in Forward, Rev.*	Flexible Chassis	RS-380 Medium Speed	RC-13

\* Dynamic Braking in neutral.

\* All cars have semi-pneumatic tires except for racing types — RA1208, RA1209, RA1012 and RA0817 which have sponge tires.

\* All cars have adjustable gear ratios to match course needs.

## Rechargeable battery & charger kits

**RC-9**—Our economy kit contains one overnight charger and 4 nickel cadmium C-cells for long running and easy operation.

**RC-11**—The recommended battery for all MRC-Tamiya tank kits. Features one overnight charger, connectors, and a sealed lead-acid 6-volt, 3 AH battery that can be recharged many times.

**RC-13**—This is the primary battery and charger kit for many of our sport and competition models. It comes with a 6 volt, 1.2 AH rechargeable battery and overnight charger.

**RC-14**—This 6 cell, 7.2 volt 1.2 AH pack and charger is especially recommended for use with the Sand Scorcher and Rough Rider. However, it can be used in some other cars as noted in the car selection chart.

## MRC quick charger

When you are really into racing the MRC-Tamiya cars you don't want a lot of down time so we have just the item to keep you fully charged and raring to go. MRC's Quick Charger will charge either a 5-cell (RC13) or a 6-cell (RC14) battery pack within a 15 minute charge time. This charger operates from your 12 volt automobile cigarette lighter. It features automatic shut-off and taper charge capabilities.

We also stock G.E. nicad rechargeable batteries and chargers that will work in place of the MRC battery packs and chargers. See page 280 for information about these excellent products.

MRC92C09	RC9 4-CELL BAT&CHGR	1201-1207	24.95	21.95	185
MRC92C11	RC11 BATT & CHGR FOR	1601-1603	29.95	25.45	185
MRC92C13	RC13 5-CELL BAT&CHG-HI	PERFORM	29.95	25.45	185

MRC92C14	RC14 6-CELL BAT&CHGR	1015&1016	34.95	29.95	185
MRC92020	MRC QUICK CHARGER FOR	RC13&14	19.95	17.45	185



## MRC

### NEW - A REVOLUTION IN OFF THE ROAD R/C CAR KITS.

# BAJA BUGGIES

The country's first RC Super Cars. They speed through mud, water and dirt. Built for the Baja. Constructed to take punishment like no other off-the-road vehicle ever made. They will run on sand, through water, on and off the road. As the first RC car kits built for sand and dirt competition as well as fun running, it's a revolution in off-the-road vehicles! These vehicles feature: fiberglass/aluminum chassis for durability and strength; real oil-filled shock absorbers to handle any surface; adjustable 4-wheel independent suspension; dynamic braking; two forward and reverse speeds; metal universal joints; sealed transmission; waterproof radio box sealed with easy to use cam locks; and heavy-duty metal front bumper.

These will run off the road, on the sand, through the water. They're the first of their kind.



(RA1016) The Sand Scorcher



(RA1015) The Rough Rider

These 2 Baja Buggies require a 2 channel radio and the MRC RC-14 rechargeable nicad battery pack and charger described on page 185.

### B2B Racing Sidecar (RA0817)

A unique three wheel vehicle. It looks like a motorcycle . . . runs like a car.

- Two speeds forward and two speeds reverse
- Fiberglass/aluminum chassis for ruggedness
- High detail in the durable ABS body • Choice on rear tires of semi-pneumatic or sponge type.

This racing side car requires a 2 channel radio and batteries. See chart on page 185 for more information.



MRC91C15	MRC RA1015 RUGH RIDER	142.95	109.95	186
MRC91C16	MRC RA1016 SAND SCORCHER	149.95	114.95	186
MRC91317	MRC RA0817 RACING SIDE CAR	59.98	47.95	186



## MRC

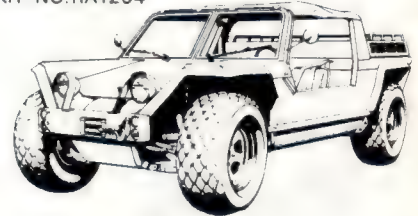
# CHEETAH



An incredibly detailed and realistic model of the popular Cheetah. This off-road vehicle will conquer the most rugged terrain! The kit has wishbone-type front and rear 4 wheel independent suspension and semi-pneumatic rubber desert tires for traveling over rough turf. This buggy features a chassis and underguard of duralumin, a powerful Mabuchi electric motor with forward and reverse speeds, and a sealed gear box. Assembled car 15 3/4" long and requires a 2 channel radio. Requires the MRC RC-9 or RC-13 nicad battery pack and charger or 4 G.E. "C" size nicads. Batteries are not included.

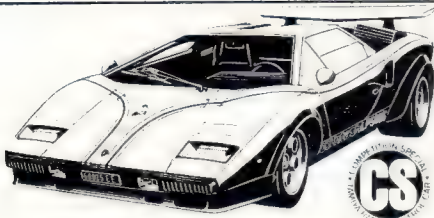
## XR311 COMBAT BUGGY

KIT NO. RA1204



This extremely popular 1/12 scale, electric Combat Buggy runs indoors or out over the roughest terrain. Features semi-pneumatic tires with vigorous tread and fourwheel independent suspension systems for tackling those rough surfaces. This big model has a 15 1/2" length overall. Has 2 forward and reverse speeds and requires a 2 channel radio.

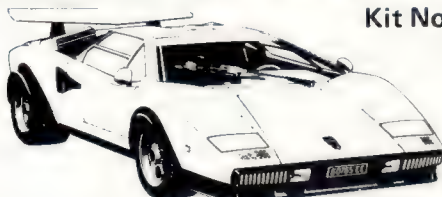
*See page 185 for rechargeable battery and charger kits for all MRC models.*



Kit No. 1208

## COUNTACH COMPETITION SPECIAL

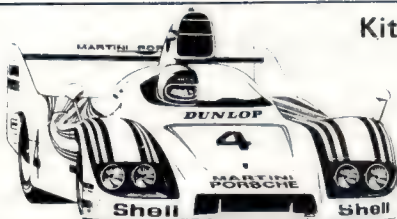
This competition special kit with good running ability has an improved version of the centre-pivoted two-piece chassis used in the Countach and Porsche 936. The main frame is made of duralumin and has higher strength. The front arms with casters are die cast. The gearbox has a ball bearing motor in front of the shaft. The front wheels are sandwich tires and the rear wheels are sponge type. This is a high-performance model with excellent mechanism. The black body and silver-plated wing give an additional charm to the model in running. Requires a 2 channel radio (not included).



Kit No. 1205

## LAMBORGHINI COUNTACH LP500S

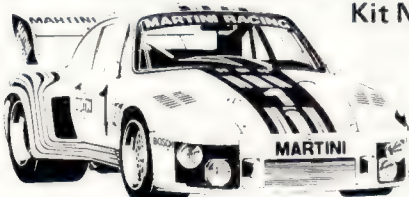
A 1/12 scale, 14" long model. This model, the Countach LP 500S, has newly designed chassis, gear box and body. The chassis is made of duralumin. Assembly and adjustment are made easy and reliable by employing loosen-proof nylon lock nuts and adjusters in many points. The body, featuring overfenders and wing, is constructed in monoblock structure to the maximum degree possible for gaining strength. This model has a maximum speed about 16 mph.



Kit No. 1206

## MARTINI PORSCHE 936 TURBO

This beautifully detailed precision RC model is the 1/12 scale version of the car that won the 1977 championship at the LeMans. The ready-to-assemble kit features forward and reverse variable resistor speed control with adjustable gear ratio, collision resistant plastic bumper, specially reinforced plastic front chassis, and durable plastic upright molded onto the axle. Assembled car is 16" in length. Kit contains a Mabuchi electric motor which requires a 5 cell Ni-Cad battery pack, or 4 "C" size nickel cadmium or dry cell batteries. (Batteries not included.)



Kit No. 1202

## MARTINI PORSCHE 935 TURBO

This is an electric radio controlled model of the Martini Porsche 935 Turbo, winner of the Maker's International Championship in 1976. The models overall length is 16" mm, with an accurately scaled 1/12 body. Its flat front fenders and huge rear fenders offer the feeling of reality. It boasts of high performance such as 16 mph maximum speed with powerful Mabuchi RS-380S motor and a 5-cell nickel cadmium battery pack (not included), two forward and two reverse speeds by speed control switch with resistor and fuse to protect motor, switch, and battery from excessive electric current.

MRC91202	MRC RA1202 MARTINI PORSCHE 935	77.98	62.35	187
MRC91204	MRC RA1204 FMC COMBAT VEHICLE	84.98	67.95	187
MRC91205	MRC RA1205 LAMB. COUNTACH SPEC.	77.98	62.35	187

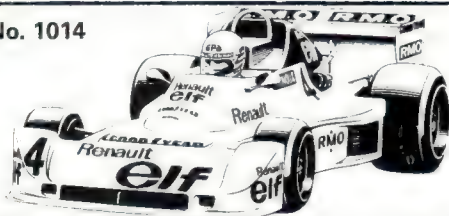
MRC91206	MRC RA1206 PORSCHE 936 TURBO	68.98	55.25	187
MRC91207	MRC RA1207 LAMBORGHINI CHEETAH	89.98	71.95	187
MRC91208	MRC RA1208 LAMB COUNTACH SPEC.	84.98	67.95	187



## MRC

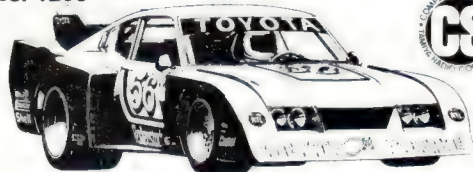
### MARTINI Mk.22 RENAULT F-2

No. 1014



Like the Martini F-2, this kit, features high performance with a graceful appearance. The main body section of the car is a one-piece, strong molding of shock resistant styrol resin. Scale reproduction, including engine detail, adds realism. The chassis design allows for a good basic performance and ease of assembly. Construction is simple and quick, as is maintenance and repair after completion. Comes with an RS-380S motor.

No. 1209



### CELICA LB TURBO Gr.5 COMPETITION SPECIAL

This is a competition special kit of the silhouette formula Celica LB Turbo which made its debut at the German national championship race in July 1977. Features variable resistor speed control switch. The chassis and front axle are the same type as Kit No. 1208. The sandwich tires and front arms with castors give excellent cornering characteristics. A great kit designed to give high performance.

No. 1201



### PORSCHE 934 TURBO RSR

This precision model of the Porsche GT 4 group racing car 934 Turbo RSR offers two forward and two reverse speeds with factory assembled printed circuit board switch. Gear box provides two gear ratios which are further shifted into two different gear combinations respectively to be selected to your course, condition and power supply. Four "C" size nickel cadmium batteries or dry batteries are needed (not included). Comes with RS-360 motor.

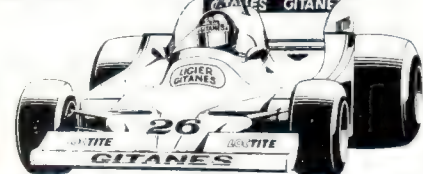
No. 1012



### LIGIER JS9 MATRA COMPETITION SPECIAL

The Ligier JS9 competition special kit has special parts for high speed running and racing to obtain maximum power. Thicker wires are used in the motor and the speed control switch is specially plated allowing better current flow. The front and rear wheels have ball bearings to minimize power loss. The powerful RS-540 motor gives better acceleration and higher speed. Special sandwich tires on the front wheels and sponge tires on the rear wheels ensure excellent controllability.

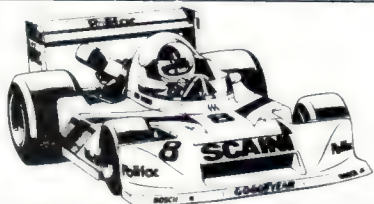
No. 1010



### LIGIER JS9 MATRA

The Ligier JS9 Matra is an all-French F-1 car in 1/10 scale. The frame is made of strong duralumin. The precision die-cut gearbox can be incorporated with ball bearings and fitted with an RS-540 motor. Die casting and front arms with caster are used for the front axle to obtain better controllability. The chassis has a servo saver for protecting the steering servo against shocks. The durable body is made of one-piece special styrol resin. The model is also equipped with a rear bumper and rear wheel guards.

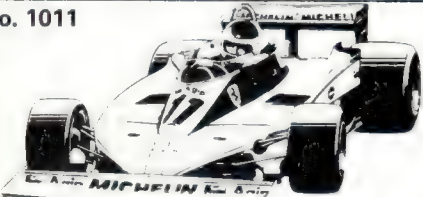
No. 1013



### MARCH 782 B.M.W. F-2

A competitively priced high performance radio controlled racing car with a scale injection molded body, high speed motor and chassis. It is easy to assemble, repair and service. Installation of electrical and radio parts has been simplified by new design features. The frame is the center pivot type comprised of a duralumin main frame and mechanism deck. The gear case is made of light special resin. RS-380S motor is included.

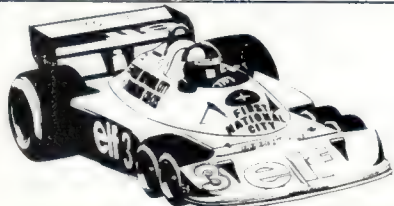
No. 1011



### FERRARI 312T 3

The Ferrari 312T3 won four Grand Prix races in 1978. Its aerodynamically polished unique style makes it a great motorized radio control model. 1/10 in scale. The chassis is the two piece type with the main frame of 17S duralumin. The front arms with caster and the gearbox are precision die cast. The servo saver protects the steering servo against shocks. The car body is made of one-piece formed plastic. This kit also contains a polycarbonate body for use in practice.

No. 1003



### TYRRELL P34 SIX WHEELER

You'll enjoy the unique feeling of driving a six wheel formula car. This is an electric radio controlled model of the Tyrrell P 34 which was hailed by many at its appearance as the first six wheeled racing car. The size, 1/10 in scale, overall length about 17", allows for easy mounting of the radio control unit as well as powerful maneuverability. All four front wheels are steerable. The front axles incorporated with workable coil springs let it take corners with ease. Mabuchi RS-380S motor and a 5-cell nickel cadmium battery pack (not included) ensures fast driving of 26 km/h.

MRC91C03	MRC RA1003 TYRRELL 6 WHEELER	77.98	62.35	188
MRC91C10	MRC RA1010 LIGIER JS9 MATRA	74.98	59.95	188
MRC91011	MRC RA1011 FERRARI 312T3	72.98	57.95	188
MRC91C12	MRC RA1012 LIGIER MATRA SPEC.	89.98	71.95	188

MRC91013	MRC RA1013 MARCH 782 BMW	49.98	39.95	188
MRC91C14	MRC RA1014 MARTINI RENAULT	49.98	39.95	188
MRC91201	MRC RA1201 PORSCHE 934 TURBO	74.98	59.95	188
MRC91209	MRC RA1209 CELICA TURBO SPEC.	84.98	67.95	188



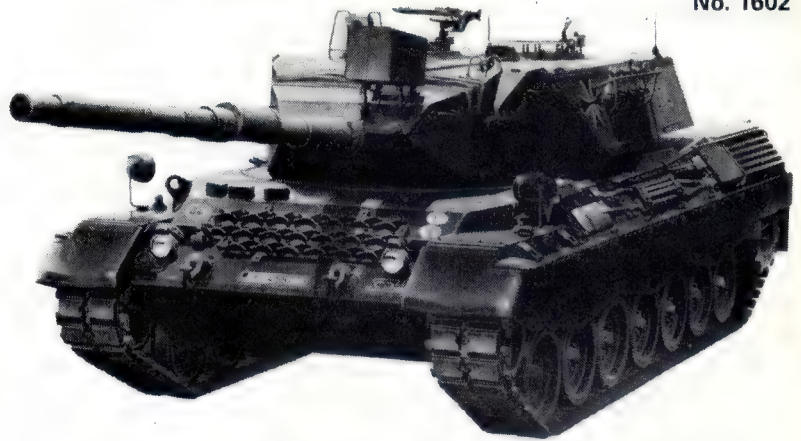
## MRC

### WEST GERMAN TANK LEOPARD A4

Length: 17"

No. 1602

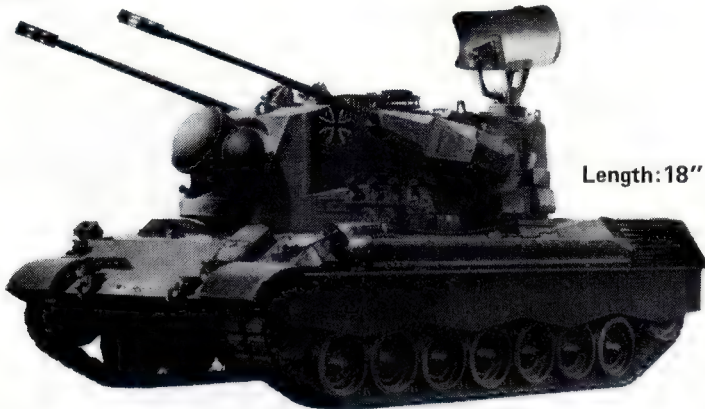
This isn't a toy vehicle to be taken lightly. It's a 1/16 scale radio controlled reproduction of a 38 ton behemoth where an almost fanatical attention to detail and uncommon engineering has produced a hobbyist's machine without equal. It starts with proportional steering through an oil impregnated, self-aligning, dual clutch drive. One servo controls 2 micro switches for forward-neutral-reverse. The other servo engages and disengages the clutch for right and left. You can literally turn those heavy metal treads on a dime. There's even an operating torsion bar suspension to flatten stubborn hills. She moves fast for a big cat and can take inclines up to 40 degrees. Details like movable turret, adjustable cannon and front body latches that can be opened to provide easy access to on-off switch are all there. A periscope, swiveling machine gun and spring loaded hatch give this Leopard all the authenticity you'd ever want in your own backyard.



Requires a 2 channel radio and RC-11 battery pack and charger kit. See page 185.

### WEST GERMAN FLAKPANZER GEPARD

No. 1603



Length: 18"

Requires a 3 channel radio and RC-11 battery pack and charger kit. See page 185.

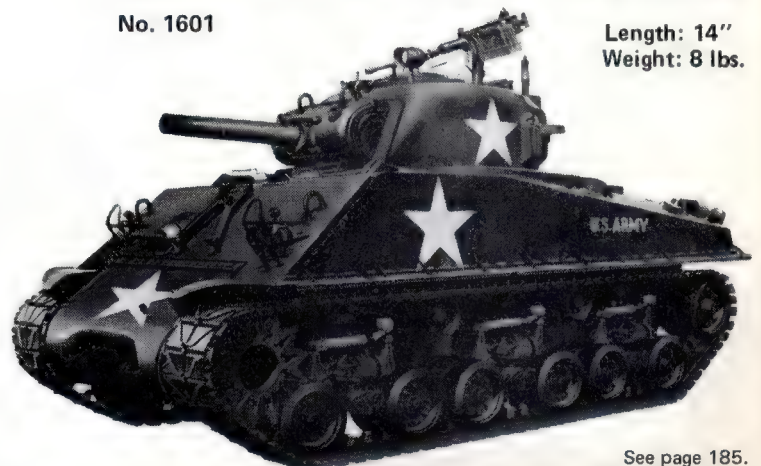
This is a 1/16 scale RC model of the Gepard, the newest AA tank of the West German Army. By using a 3 channel, 3 servo proportional radio you can move the tank back and forth, steer it right and left, revolve the turret and, at the same time, move the guns up and down and rotate the radar. As with the 2 other tanks, all electric motors that are required are included. The model looks weighty (11 lbs.) because it has a number of metal components such as the durable duralumin chassis, stainless steel torsion plate which works like a real one, and steel tracks with individual links. It also features a preassembled clutch system for easier construction, independent suspension system, tough ABS upper hull, and the ability to climb a 40 degree incline.

### U.S.A.M4 SHERMAN TANK LATE TYPE WITH 105mm HOWITZER

No. 1601

Length: 14"  
Weight: 8 lbs.

This is a 1/16 scale RC version of America's M4 Sherman of which 50,000 were produced during World War II. It's a sophisticated piece of engineering that will provide a real challenge for RC experts as well as novices. Like the 2 other tanks, it can be operated indoors or outside. The kit includes hundreds of die-cast and stamped metal parts as well as precision molded nylon and ABS plastic parts. Pivot turning or gradual turning can be made at will through the twin clutches. Building is made simple due to a complete descriptive 8 page manual containing about 50 photos, exploded views, and drawings. An additional 18 page manual explains the principles of RC, real and model tank operation, and troubleshooting. Complex subassemblies are already assembled.



See page 185.

Requires a 2 channel radio and RC-11 battery pack and charger kit.

MRC91601	MRC RT1601 SHERMAN RC TANK	156.98	117.95	189
MRC91602	MRC RT1602 LEOPARD RC TANK	199.98	149.95	189
MRC91603	MRC RT1603 GEPARD RC TANK	249.95	184.95	189



## PEERLESS

CARS COME ASSEMBLED

### SUPER SPORTS 1:12 scale



No. 2128 SUPER SPORTS PORSCHE RSR TURBO

Take command of the race with this 1/12 scale Super Sports Electric Race Car. The high powered 6 volt DC motor allows this car to reach speeds of over 25 mph!! Features a pre-painted, die-cut body, factory assembled chassis, differential gearing, built-in proportional slide rheostat speed control, front and rear spring suspension, nylon wheels, sponge tires, and 6 volt 1200MA Ni-Cad battery. Requires a 2 channel radio and 2 servos (not included).



No. 2127 SUPER SPORTS LANCIA STRATOS



No. 2126 SUPER SPORTS LAMBORGHINI COUNTACH LP 500

### little sports 1:20 scale



No. 2231 LITTLE SPORTS BMW 3.5 CSL



No. 2232 LITTLE SPORTS PORSCHE 935 TURBO



No. 2233 LITTLE SPORTS DE TOMASO PANTERA GR-5

Step into a whole new world of racing excitement with 1/20 scale electric race cars. 1/20 scale makes a 4' turning radius possible, so you can race in the house or on the track. Features built-in electric proportional speed control servo, (specially made to fit Futaba receivers.) special high powered 6 volt DC micro motor, ball joint tie-rod adjustments, nylon wheels, and sponge tires. Requires a 2 channel radio, but only 1 servo. Reaches speeds of over 20 mph!! Body is pre-painted with decals, and Ni-Cad battery included. (Radio is not included.)

#### No. 2211 SUPER NI-CAD BATTERY



(For 1/20 only)

The Peerless Super Ni-Cad Battery is composed of five 1.2 volt quick charging, sealed Ni-Cad batteries pack in line for a total of 6 volts output, which can be repeatedly recharged over 300 times, if handled properly. 250 MAH

#### No. 2204 SUPER NI-CAD QUICK CHARGER



The Peerless Super Ni-Cad Quick-Charger is especially made for Peerless Super Ni-Cad batteries and can be operated of a 12 v. battery. Features a 15 min. timer with safety resistance factor incorporated.

#### No. 2213 SUPER NI-CAD HOME CHARGER



The Peerless Super Ni-Cad Home Charger is an epoch-making charger capable of charging both Peerless 6 volt Super Ni-Cad Battery 250 and the Peerless Super Ni-Cad Battery 1200 simultaneously, safely and reliably.

PEL92126	PEER. 2126 1/12 LAMB. COUNTACH	110.00	69.95	190
PEL92127	PEER. 2127 1/12 LANCIA STRATOS	110.00	69.95	190
PEL92128	PEER. 2128 1/12 PORSCHE TURBO	110.00	65.95	190
PEL92204	PEERLESS 2204 QUICK CHARGER	27.95	23.75	190

PEL92211	PEERLESS 2211 250MA NICAD BATT	20.00	15.95	190
PEL92213	PEERLESS 2213 HOME CHARGER	13.00	10.95	190
PEL92231	PEER. 2231 1/20 BMW 3.5 CSL	100.00	59.95	190
PEL92232	PEER. 2232 1/20 PORSCHE 935	100.00	59.95	190
PEL92233	PEER. 2233 1/20 PANTERA GR-5	100.00	59.95	190



# PRECISION

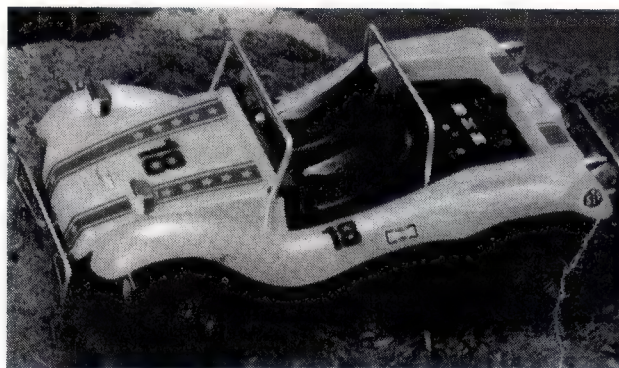
490 SERIES 1/10 SCALE

## Big Thunder™

OFF-ROAD SPECIAL

**You shift gears!**

*Gear shift on the car can be adjusted manually*



Big Thunder is a true off-road vehicle. Put it in low gear for hill climbing, medium for rough ground and high for smooth even surfaces. Its big semi-pneumatic tires work together with Big Thunder's unique suspension system to keep the vehicle on an even keel over the roughest terrain. Dual stick transmitter with trims gives you finite control of speed and steering in forward or reverse. And you can stop on command. From its rugged chassis to its sporty lemon-colored body, Big Thunder stands alone!

Vehicle is 15" long. Vehicle uses 4 "C" alkaline or Ni-Cad rechargeable batteries and 4 "AA" penlite batteries (not included). Transmitter uses 6 "AA" penlite batteries (not included).

800 SERIES 1/125 SCALE

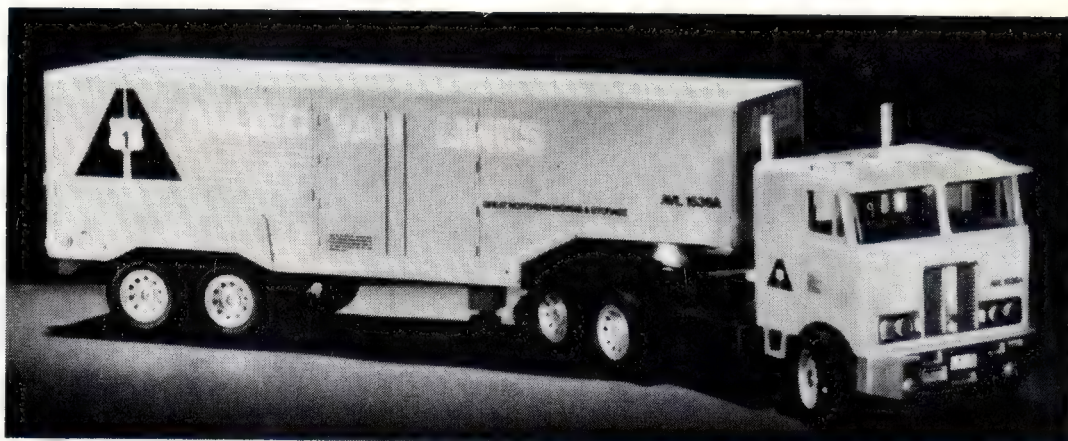
## 18-WHEELER™

WITH FLATBED AND RAMP

**Hitches and unhitches by radio control!**

These are big—more than 22 inches long! And they handle like the real thing! You can hitch and unhitch the tractor and trailer automatically by radio control. A steering wheel transmitter assures you of precise proportional right and left steering. Jockey your rig in forward or reverse or stop on a dime. When you drive the 18 Wheeler—you are driving one of the most unusual R/C vehicles—one of the true breakthroughs in radio control.

Each truck is 22" long. Truck uses 4 "C" size batteries (not included). Transmitter uses 1 9-volt battery (not included).



PRC90490	PRECISION 4900 BIG THUNDER	149.95	99.95	191
PRC90801	PRECISION 80001 18-WHEELER	99.95	69.95	191



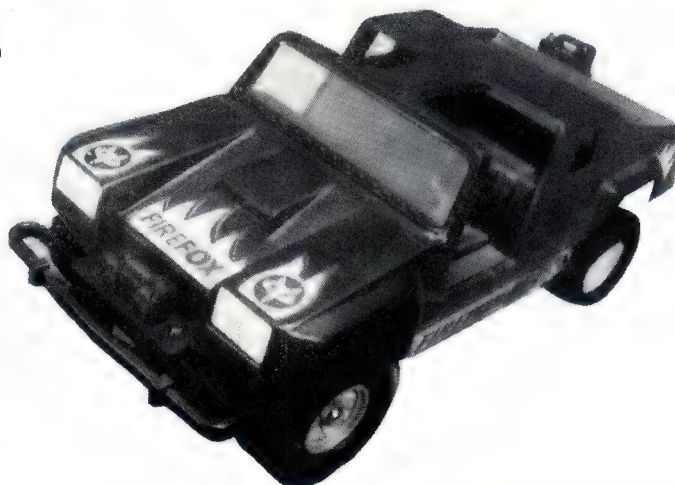
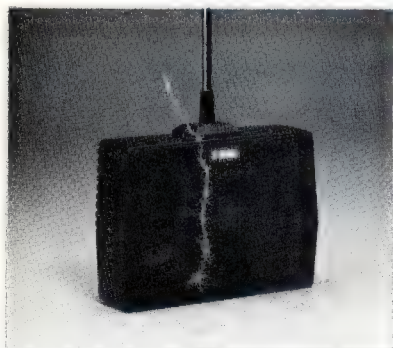
SHINSEI

# FIREFOX<sup>TM</sup> 1980 OFF ROAD RACER

S=1/15

NEW STYLING  
FOR 1980

NEW PROPORTIONAL  
SPEED CONTROL



This new beauty is more than skin deep. There is added protection for the mechanical and electronic components and a new 150 ft. range I.C. oriented circuitry for even more reliability. A new enclosed case for the tried and true 2 speed transmission helps keep dirt away from the gears. Batteries not included. 6 "C" cells required in Firefox. 4 "A" cells required in transmitter.

SHI91200 SHINSEI FIREFOX OFF ROAD RACER 59.95 79.95 192



*The rugged, die cast aluminum construction adds the feeling of owning a big rig.*

Length: 31½"

S=1/24

## AUTO-CARRIER AND FLATBED

These exceptionally detailed scale models are made of aluminum NOT plastic. Beautiful enough to be exhibited as a treasured scale model and responsive enough to give you the feeling of handling your own eighteen-wheeler, this vehicle has new electronic proportional steering and speed control circuitry to enhance the already high quality and reliability which made this a best seller in 1979. The addition of the flatbed trailer to the line, along with new colors creates the excitement to carry our flagship into 1980. New upgraded I.C. oriented circuitry. Automatic remote coupling and turn signals. Batteries not included. Truck- 6 "C" cells. Transmitter 4 "AA" cells.



SHI91100 SHINSEI PETERBILT AUTO-CARRIER 199.95 169.95 192  
SHI91110 SHINSEI PETERBILT FLAT BED 159.95 149.95 192



SHINSEI

# MOUNTAIN MAN™

## 4 WHEEL DRIVE TURBO BLAZER

- AUTOMATIC TRANSMISSION WITH TORQUE SENSOR
- INDEPENDENT SUSPENSION
- PROPORTIONAL SPEED & STEERING



This all new addition to our Off Road Line features a unique transmission that senses hills, rocks and other obstacles, and automatically downshifts to double-low. The large tires and high ground clearance chassis gets the Blazer over obstacles that would stop a lesser vehicle. The newly engineered 150 foot range I.C. oriented transmitter

and receiver circuitry was designed for even more stability and reliability than the previous Shinsei electronics. Batteries not included. Blazer required 6 "C" cells. Transmitter required 4 'AA' cells. No. 1116/26

SH191300 SHINSEI MOUNTAIN MAN BLAZER

129.95 99.95 193

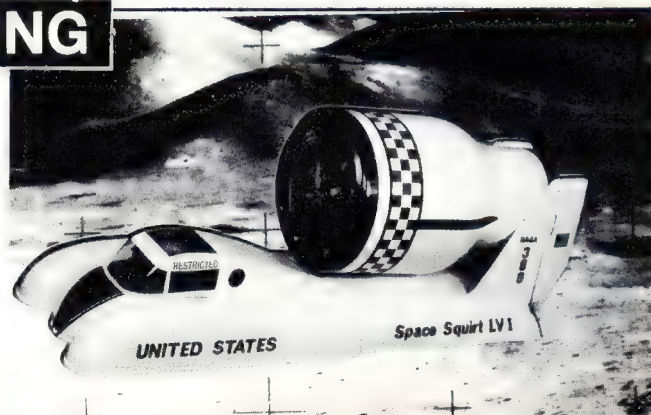
# SPACE SQUIRT

Length 24 Width 7 1/4 Engine .049

STERLING

KIT LV I

**A snappy Land Vehicle developed for 2 channel R/C, expertly designed featuring accurately die-cut Balsa, precisely vacuum-formed parts, Hardware and detailed Plans and Instructions.**



STE7C001 STERLING LV-1 SPACE SQUIRT

27.95 22.35 193



## MODEL HELICOPTER KITS

### Helicopters

Helicopters have been on the R/C scene for several years. In the past, complexity and cost have kept the helicopter from being accepted by the general R/C public. However, recently the helicopter has become increasingly popular due to more simple designs and more affordable prices.

We handle the American R/C line of helicopters which are made in California and are a good rugged line.

The "Mantis" is Americans' newest addition and is the perfect first helicopter. With its .40 size and low cost, it brings to the average modeler a chance to enjoy the thrill of helicopters.

Unlike the airplane, the helicopter has no wings to provide lift. Rather, it relies on the main rotor for lift and thrust. It may have up to five controls. The cyclic pitch control of the helicopter operates the pitch (climb and dive), and the roll of the machine. The collective pitch operates the pitch of the main rotor blades. The tail rotor control operates the tail rotor blade pitch and there is also a throttle control. Due to the nature of the helicopter, it is controlled in a totally different manner than that of the airplane.

Although it is not difficult to control a helicopter, it does require a special set of reflexes.

One thing that is very important to the helo flyer is the fact that he must have absolute trust in his engine. It must be broken in carefully, and must run reliably before one can even entertain thoughts about putting it into a helicopter. The main reason for this is because helicopter usage is very hard on an engine. It's forced to run at its peak setting for long periods of time, large demands are put upon it, the rotor system, and it is made to run in a hotter environment than it would find in more normal service. A well run-in engine will be easier to manage, and you will know its handling characteristics well enough to tell how it is running at any given time.

We do carry a training aid for helicopters, and that is the GMC Helicopter training table. It can help you learn the basics of how one ought to move the control sticks to achieve helicopter flight. As shown in the pictures, it is a ball on a tilting table. Since a helicopter in hover near the ground reacts very similarly to the ball on the table, this little gadget can help you out.

## AMERICAN R/C HELICOPTERS

# MANTIS from American R/C...

The MANTIS . . . the helicopter that has something for everyone! Easy to hoover and fly for beginners, yet capable of exciting flight for you experts. Made of readily available materials, that allow quick and inexpensive repair, the Mantis is one helicopter that "keeps on giving!"

.40 powered, the Mantis offers the following features:

- ★ LIGHTWEIGHT
- ★ EASILY ASSEMBLED
- ★ EXTREMELY STABLE
- ★ CONTAINS NO METRIC PARTS
- ★ FLYS WITH A 4 CHANNEL RADIO SYSTEM  
(Not Included)



**American**  
R/C Helicopters, Inc.

A TRULY AEROBATIC HELICOPTER  
AT HALF THE PRICE YOU'D EXPECT TO PAY

CAPABLE OF  
PERFORMING LOOPS



ARC77500 AMERICAN RC .40 MANTIS

149.00 133.95 194



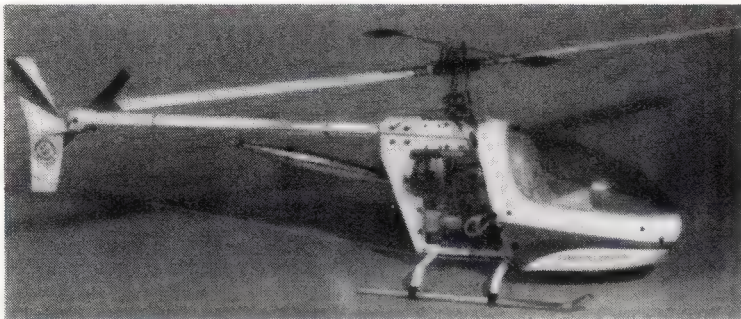
## AMERICAN R/C HELICOPTERS

# REV-OLUTION

The Rev-olution is the perfect trainer helicopter for the beginner and it is an amazing machine in the hands of an expert. It's rugged design and construction coupled with ready parts availability from the manufacturer in California are all in the beginner's favor.

**Specifications:** Requires 4 channels and any good .40 size engine. Rotor span is 41", weight is 5 3/4 lbs. All components are American manufactured and feature a main rotor shaft of titanium, all shielded ball bearings, failsafe clutch, one piece canopy, and complete instructions. 6-8 hour assembly time.

Now in 2 versions—(1) Complete basic kit with standard rotor, and (2) Complete basic kit with collective pitch. Neither come with an engine or muffler.



Authentic autorotations with our exclusive system are simple and easy to do. Whether you are 10 feet or 300 feet above the ground you can confidently handle the possibility of engine failure, and at the same time experience the thrill of performing the newest and most exciting of R/C helicopter maneuvers!

**Mike could fly other Helicopters -  
But he likes being #1  
HE FLYS AMERICAN!**

Mike Mas and the American R/C "Commander" rose to new heights with an impressive 8 win/no loss record with flight in every contest — And not once was Mike required to fly all the free style maneuvers to capture 1st place. We would like to congratulate Mike on his success and offer you a chance for yours.

(extra rotor blades available)



**INDESCRIBABLY THRILLING!**

*Fully Aerobatic*

## "COMMANDER"

THESE ADDED FEATURES MAKE THE "COMMANDER"  
THE LEADER IN R/C HELICOPTERS FOR 1979:

- COLLECTIVE PITCH A STANDARD FEATURE
- REQUIRES ONLY A 4-CHANNEL RADIO SYSTEM (Not Included)
- USES CONVENTIONAL .61 ENGINE (No Schwabe Engine Required)
- MOST RUGGED CONSTRUCTION OF ANY .60 SHIP AVAILABLE
- EASY, BOLT TOGETHER ASSEMBLY
- NO METRIC PARTS — SPARE PARTS READILY AVAILABLE
- EASY TO BUY, FLY & REPAIR
- OUTPERFORMS ALL OTHERS IN ITS CLASS
- FACTORY TRAINED TECHNICAL ASSISTANCE

**NOW with Engine Shut-Down  
AUTOROTATION!!!**

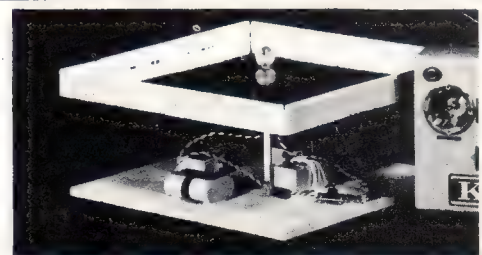
ARC77C00	AMERICAN RC REVOLUTION .40	239.00	227.00	195
ARC77C40	REVOLUTION W/COLLECTIVE PITCH	289.95	275.45	195
ARC77260	REV. II COMMANDER W/COLL. PITCH	385.00	339.95	195
ARC78200	REVOLUTION MAIN ROTOR BLADES	8.75	8.30	195
ARC78201	REVOLUTION TAIL ROTOR BLADES	2.25	2.20	195
ARC78205	REVOLUTION II MAIN ROTOR BLDES	12.75	12.10	195

# GMC

## R/C TABLE TRAINER

The R/C Table Trainer has been featured in Modeler Magazine. This handy gadget will sharpen your flying skills for planes or helicopters and can be used in the den, living room, or shop. For the beginner, learn how to handle reversal of directional controls that occur when an R/C aircraft is flying toward you, master moving, accelerating and stopping the steel ball on this Table Trainer and smooth control of your R/C aircraft will be considerably improved.

Besides the practice, you are cycling your batteries, testing your transmitter and receiver, and it's great fun!



GMC99C01 GMC RC TABLE TRAINER

11.95 10.75 195



# RADIO CONTROL SYSTEMS

## Radios

The radio is the heart of the R/C system ... the sport is called *radio control*. Without it, we would have no means to fly our planes as we would like them to be flown. We would still be flying free-flight. With modern R/C equipment, we can do all of the same maneuvers that a real plane can do. In fact, we can do some that no real plane can do! Have you ever seen a real plane turn around in nearly a 90-degree bank without losing any altitude?

In using radio equipment, the word, "channels" comes up very often. This word stems from early days of R/C equipment development. Then, it meant that different channels were used to carry the control information, and that the receiver could "hear" only one channel at a time. This meant that you could not have two simultaneous control inputs, but, instead, you would have to rapidly alternate control inputs. Nowadays, the word "channel" refers to the number of control functions of the system. Any or all of them may be used at the same time, giving us complete control of the aircraft ... at least as complete a control as our skill allows!

There are four basic components to the R/C system: the transmitter, the receiver, the on-board battery, and the servo (there may be several of these).

The transmitter is the device that sends the signal to the plane. It has upon its face several controls. There are up to four major controls, and a variety of minor controls. On a four- or more channel system there are four major controls: each of the control sticks that extend out of the face for a few inches controls two controls. The controls are: elevator, rudder, ailerons, and throttle. Each stick has a small control, called the "trim" near it. The trims allow small adjustments in the position of the center of control movement. This allows you to adjust the radio when you only need a small movement of the stick to hold the aircraft in a neutral flight condition.

The other controls that may be found on a radio are extras. There are usually up to three of these extra controls. They allow you to control more functions than the four major flight controls, such as retractable landing gear, landing flaps, and anything else you may need.

When you move a control upon the transmitter, it encodes this movement into a series of pulses and sends them out into the airwaves via a radio signal. This frequency is determined by the manufacturer of the system, and must be one of those allowed for R/C purposes by the FCC (Federal Communications Commission).

The receiver collects the signal with the antenna, and decodes the signal into the various control pulses and sends the proper pulses to the proper servo.

The servo is a little device that contains some circuitry and a small electric motor. The circuitry uses the pulsed signal sent to it by the receiver to tell the electric motor which way to turn, and how far to turn. The motor turns a series of gears which reduce the speed of the motor, and increase the torque output. On the top and outside of the servo, there is a little wheel or lever with some holes in it.

This is the servo output arm. It is connected to the control pushrod and transfers the power of the servo to a pushrod, which moves the desired control on the aircraft.

Since there must be some sort of power used by the electric motors and the circuitry of the servos and receiver, an on-board battery is used. It works through a switch so that you can turn off the power when it is not needed. Also linked through the switch is a plug which allows a charger to be connected to the battery. In most R/C systems, the battery is of the nickel-cadmium type. This battery is small and quite powerful, and is capable of being recharged many times. An interesting feature of these batteries is the fact that if they are used a lot, they will have a longer useful life than if they are used little.

These batteries (also called Ni-cad batteries, or "Nicads") are not good for holding a charge for a long time, so they must be charged the night before they are used, even if only a few days have elapsed since they were last charged. You should refer to the manufacturer's instructions for the proper procedures for charging.

You will also usually find nicad batteries in your transmitter. Though of a higher voltage than those used in the airborne system, their properties are the same, and they usually use the same charger provided for charging the airborne batteries, though a different connector is provided so that you won't mix-up the receiver and transmitter batteries during charging.

## Frequency:

There are several frequencies used in R/C. Except as noted, they can be used for any R/C use. \*-denotes for aircraft use only.

26.995 (brown)	53.100 (black & brown)	72.080* (white & brown)
27.045 (red)	53.200 (black & red)	72.160 (white & blue)
27.095 (orange)	53.300 (black & orange)	72.240* (white & red)
27.145 (Yellow)	53.400 (black & yellow)	72.320 (white & violet)
27.195 (green)	53.500 (black & green)	72.400* (white & orange)
27.255 (Blue)		72.960 (white & yellow)
		75.640* (white & green)

The colors noted are the colors of the streamers mounted at the end of the transmitter antenna. They help you at the field to identify any frequency by simply glancing at the flags in use.

Frequencies in the 27 MHz range are in the same band as the familiar CB voice channels. In fact, CB frequencies are between the R/C frequencies, and one frequency, 27.255 MHz, is actually *shared* with a CB frequency (channel 23). Normally the separation between frequencies is enough to prevent interference between frequencies, but the widespread growth of CB, with the usual lack of care for transmitter tuning by the average CB'er has resulted in a tremendous amount of radio interference that has rendered the 27 MHz band virtually useless to the R/C'er. That's why you don't see many 27 MHz systems available any more.

Frequencies in six-meter (53 MHz) range are clear and uncrowded, but you must have a special license to use these frequencies (see "licensing"). Because of these



licensing requirements, few people are using these frequencies, and radios on this band are available by special order only.

The 72 MHz band is nowadays the most popular R/C band. This is because there is little interference by other services, and the licensing requirements are very simple. There are seven frequencies, so that there is little crowding except for the most densely populated areas. One note, however, some of the 72 MHz frequencies are used by public-service agencies for communications. This use is limited to various areas, and is not continuous ... check with your nearest FCC field office to check which frequencies may be in use.

The only limit to usage in the 72 MHz band is the restriction placed upon four of those frequencies. These four may not be used for any radio-control use, except for the flying of model aircraft. If you want to run boats, or cars, or anything else that is not an aircraft, you must use one of the other R/C frequencies (see Frequency chart).

## Licensing

Because of the frequencies used and the power of the transmitters, the FCC requires that the modelers hold an appropriate license *before* they operate their R/C Equipment. The license needed depends upon the frequency band used.

In the 27 or 72 MHz band, you must hold a Class C Citizen's Radio Station License. This is not the same as that license used by people who have citizens'-band radios in their house or car. That is a class D license. The class C license is limited to non-voice transmitters for the radio-control of models, only. In order to get this license, you must fill out an FCC form #505 and send it in. There is no charge for this service, but you must have the license in your possession before you can operate your R/C gear legally.

In the 53 MHz band, you must be the holder of an Amateur Radio License with a technician class or higher rating. If you want to obtain this license, you must pass an examination in electronic theory, and pass a practical examination in morse code. You can contact the FCC or a local Amateur radio club, or a store that sells amateur equipment for details in getting this license. It is difficult to get, but it opens a lot of possibilities for you, since very few modelers use these frequencies.

## Installing your radio

When you have received your radio and are ready to install it, make sure that you read the manufacturer's instructions carefully. This way you will know how to hook it up properly, and will be able to check out the condition of the radio.

If the manufacturer provides you with a procedure that will allow you to check-out the radio when you have just received it, use it as soon as you have received the

system. Each radio manufacturer provides his radio with a warrantee against defective parts or poor workmanship. You should read their warrantee carefully so that you will understand exactly what he will do when you have difficulty with your radio.

Once you have decided that the radio is checked-out and it is ready to install, take a look at the servos when they are all hooked-up. As you move the sticks, observe the direction of rotation of each servo. By observing this movement, you will be able to decide how to route your pushrod installation so that you will hook up the controls to move in the proper direction.

The direction that a servo rotates is totally irrelevant, except in certain uses. These are strip ailerons in airplanes, and the steering servo in some cars. In any other installation, if you find that you just have to have a servo that moves in a particular direction, then you have made an error in planning your control installation. (For strip ailerons, the servo should move in a counter-clockwise direction when you deflect the aileron stick to the right.)

When you go to mount your radio in your plane use the mounting trays provided with the radio. If your radio did not come with trays, your servo can still be mounted in the plane. Make a pair of servo rails out of hardwood or plywood, about  $\frac{1}{4}$ " x  $\frac{3}{8}$ " and space them so that the rails are centered under the mounting holes of the tray, or under the mounting flange of the servos, if you are not using trays. Mark the location of the holes, and drill them out for the screws you will be using. When you put the servos or the tray into the rails and insert and tighten the screws, do not tighten them so that the grommet that is in the servo or tray is deformed. This will rob your servos of a vital anti-vibration protection provided by the grommets.

Wrap your receiver and airborne battery in a layer of foam rubber. Do not wrap the foam so tightly that it is stretched ... it should go around quite easily, and not be forced. You will wind up with a bundle that is quite a bit larger than the original size of either component, but you will now have something that will resist vibration (and any impact you might impose upon it).

Finally enclose your receiver and battery in a plastic bag so that they will resist any fuel or oil that may find its way into your plane. This step is especially important if your battery will be mounted under the fuel tank. Now insert your radio into the plane. The receiver and battery should fit into place without causing the foam to be tightly crushed against the sides of the plane. The foam should be free to stay completely expanded. This will inhibit transmission of vibration to the radio components.

You can use foam from  $\frac{1}{4}$ " in thickness, up to whatever you like. Just so long as you can get it into the plane without crushing it, you'll be all right. Sonic-Tronics makes an excellent protection foam, marketed under their name of "Protect-A-Pak". I've used this stuff many times, and it works just as it should ... provided you use it properly.



## ACE

# DIGITAL COMMANDER THREE CHANNEL

SINCE ITS INTRODUCTION, our Three Channel System Kit has gained tremendous popularity in the field. Its flawless performance, easy assembly, sensible mechanical layout, and low price all have combined to make a radio system kit that is one of the best bargains in the industry today.

This is not only a top quality Three Channel System equipped with precision open gimbal sticks, trim on the throttle function, ESV battery condition meter, two high performance servos with Signetic's 544 IC amps (one of which is assembled), state-of-the-art CMOS double deck receiver, plus rechargeable ni-cd flight batteries and charger (the transmitter takes a 9V dry battery which is not furnished). It is also an expandable system—transmitter conversion kits are available to upgrade to five or seven channels at a reasonable price. The builder can start at an economical novice level with a three channel system and then, as he gains competence, he can add functions at a minimum of expense; none of his equipment is obsoleted.

Since the receiver has eight channel capability, all that needs to be added to it is more wires and connectors plus additional servos for each additional channel.

If you didn't buy a Three Channel before because you knew you would want to go the more channels later, you no longer have any excuse.

AVAILABLE ON ALL AMERICAN R/C FREQUENCIES.  
If not specified, we will ship on any 72/75 MHZ.

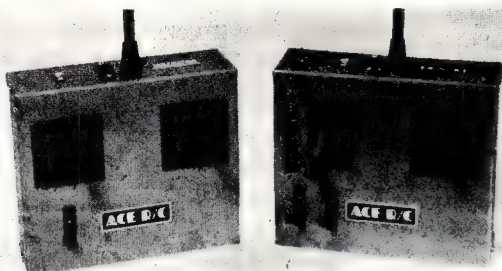
All servos have:

- IC servo amplifier
- Diode protected circuitry
- High resolution and quick transit time
- May be used with any positive pulse system
- Pulse inverter available for negative pulse systems (14G18)
- AVAILABLE ASSEMBLED



STANDARD BANTAM FLIGHT PACK (450 MAH BATTERIES)  
COMPLETE SYSTEM KIT (10G30)

### FIVE CHANNEL TRANSMITTER CONVERSION

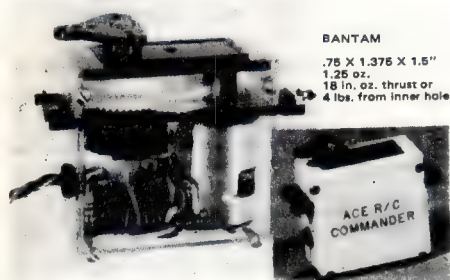


### SEVEN CHANNEL TRANSMITTER CONVERSION



BANTAM MIDGET OPTION (450 MAH BATTERIES)  
COMPLETE SYSTEM KIT (10G30R)

### BANTAM



BANTAM  
.78 X 1.375 X 1.5"  
1.25 oz.  
18 in. oz. thrust or  
4 lbs. from inner hole

**BANTAM**—our most popular all-around servo. Uses top quality D & R mechanics to produce a servo that is small yet very powerful and super quick, all with resolution better than 1%. If you want even more thrust, a High Power Conversion is available that will boost the output to over 7 pounds of thrust measured from the inner hole.

### MICRO



MICRO  
.625 X 1.25 X 1.28"  
.75 oz.  
14 in. oz. thrust or  
3 1/2 lbs. from outer hole

**MICRO**—using the Dunham D-5 mechanics, this is one of the smallest and lightest servo kits available in the industry today. Although small in size, the Micro servo still boasts 4 pounds of output from the inner hole on the output arm. Also has high speed and resolution.

This is the perfect servo for installations requiring minimum size and weight. Can be modified for 180° rotation for retract applications (14L54). Check the options available for flight packs and servo/battery combos.

### BANTAM MIDGET



BANTAM MIDGET  
7 X 1.125 X 1.43"  
.85 oz.  
17 in. oz. thrust or  
4 lbs. from inner hole

**BANTAM MIDGET**—our most versatile servo option; very small and light with an extremely low profile—important when interfacing the rudder and elevator servos with the aileron servo. Yet, the servo has the power and strength of its bigger brother, the standard Bantam. So, this servo is small and light enough for full house 1/2A's and yet has the power and strength for the .60 pattern ships!

A rotary wheel, extended arm, and an adjustable arm are furnished with each servo.

ACF81210	ACE 14G20 BANTAM SERVO KIT	23.95	22.75	198
ACE81211	ACE 14G20C BANTAM SERVO ASSMLD	28.95	27.50	198
ACE81220	ACE 14G20R BANTAM MIDGET KIT	26.95	25.50	198
ACE81221	ACE 14G20RC BANTAM MIDGET ASSM	31.95	29.95	198
ACE81230	ACE 14G20M MICRO SERVO KIT	27.95	26.50	198
ACE81231	ACE 14G20MC MICRO SERVO ASSMLD	32.95	30.95	198
ACE81241	ACE 14K104C SERVO REVERSER	11.50	10.95	198
ACE83104	ACE 14K89 BANTAM HI-POWER CONV	1.00	.95	198
ACE83189	ACE 11G35 5 CH TX CONVERSION	21.95	20.85	198
ACE87C50	ACE 11G37 7 CH TX CONVERSION	26.95	25.50	198
ACE87C70	ACE 12G18 SINGLE DECK RECEIVER	33.95	31.95	198

ACE87128	ACE 12G28 DOUBLE DECK RECEIVER	33.95	31.95	198
ACE87207	ACE 11G207 TX ONLY-SILVER 7	159.95	149.95	199
ACE87500	11G500 EXPONENTIAL RATE OPTION	17.95	16.95	199
ACE87505	11G505 ELECTRONIC MIXER OPTION	11.95	11.35	199
ACE87510	11G510 PROGRAMMABLE BUTTON OPT	8.95	8.50	199
ACE88120	12G28-28 FLITE PK W/2 BANTAMS	74.95	69.95	198
ACE88140	12G28-48 FLITE PK W/4 BANTAMS	114.95	106.95	198
ACE88931	10G30 3 CH. KIT W/STD. BANTAM	119.95	111.95	198
ACE88932	10G30R 3 CH. KIT W/BANTAM MCDT	124.95	115.95	198
ACE88972	10G107B SILVER 7 W/STD. BANTAM	284.95	264.95	199
ACE88973	10G107R SILVER 7 W/BANTAM MCDT	294.95	274.95	199



## ACE

# THE ACE SILVER SEVEN—A Full Blown Competition Radio at a Sport Radio Price!

Over two years of development has produced a kit of one of the finest, most versatile pieces of equipment available on the market today at a price which is no more than a system that has none of the features!

How can Ace do it, you ask. Primarily, by offering it as a kit, you furnish the labor, which is a significant part of the cost. Plus, by basing the transmitter technology on the revolutionary Signetics NE5044, the parts count is at a minimum, which increases dependability, plus lowers the price. Third, you don't have to pay for more than you need. Most of the more exotic features are available as add-on option kits, keeping the cost of the basic unit low, yet the options are quite reasonably priced.

### TX SPECIFICATIONS

SIZE: 6 7/8" X 6 3/4" X 1 15/16"

WEIGHT: 28 oz.

FREQUENCIES: All American 27, 53, 72 MHZ  
(RF deck can be interchangeable)

POWER OUTPUT: 600 MW nominal

OPERATING VOLTAGE: 9.6V nominal

POWER CONSUMPTION: 140 MA ave.

POWER SUPPLY: 500 MAH, AA Ni-cd

ANTENNA: 39 1/2", 9 Section

MODULATION: Pulse Position, AM, 96%

NOMINAL PULSE WIDTH: 1.5 ms  $\pm$  0.5 ms (variable)

For those who already have an Ace Flight pack, and would like a Silver Seven System, you may purchase the 7 channel transmitter only.

- 10G107B— Complete System Kit with 4 Bantam servos, Single Deck receiver, 500 mah AA Flight batteries.
- 10G107R— Complete System Kit, 4 Bantam Midget servos, Double Deck receiver, 450 mah Flite batteries.
- 11G207— Silver Seven Transmitter Only, Kit Ni-Cad batteries furnished, no charger. Please specify frequency.

*Complete systems are furnished with basic transmitter, receiver, 4 servos, all ni-cad batteries, charger, all connectors and switches, and assembly manual.*

See page 198 for servos and receiver

### STANDARD FEATURES

**I. SERVO REVERSAL SWITCHES**  
With just a flip of a switch, the servo travel direction on each of the four primary channels can be reversed. This is a tremendous time-saving aid when it comes to radio installation and setting a new plane up.

**II. INDEPENDENT THROW ADJUST**  
On all seven channels the amount of servo travel can be controlled independently by adjustment pots accessible from the rear. Ideal for "tweaking" that favorite plane to just the right amount of control response desired. Also makes setting up the throttle and auxiliary functions easy so you don't overdrive the servo.

**III. FIFTH CHANNEL ADJUST**  
Servo position when the retract switch is either in the "Up" or "Down" position is independently adjustable so you just set where you want the servo to go when the switch is "UP" and vice versa.

**IV. TRIM LOCATION VARIABLES**  
The location of the trims is at the builder's discretion so you can have standard trim, crossed trim, or a combination of the two.

**V. TRIM AUTHORITY PROGRAMMABILITY**  
By changing "plug-in" fixed resistors, the amount of servo excursion when the trims are moved is programmable.

**ACE R/C, Inc.**  
BOX 511, 116 W. 18TH ST., HUGGINSVILLE, MD 24043

**VI. DUAL RATE**  
Switches and adjustment pots are furnished to provide DUAL RATE on up to three channels. The amount of throw change effected by flipping the switch is adjustable from approximately 50% to 95% of throw. The builder determines the location of the switches.

**VII. OPEN GIMBAL STICKS**  
In the standard configuration, D & R plastic open gimbal sticks are furnished with the trims and 6th & 7th channels located on the face plate. Top quality Clarostat plastic conductive element pots are furnished in the control functions.  
Mode II or Mode I is internally programmable.

**VIII. BATTERY CONDITION METER**  
An Expanded Scale Voltmeter is furnished to monitor transmitter battery condition to determine if it is safe to operate the transmitter.

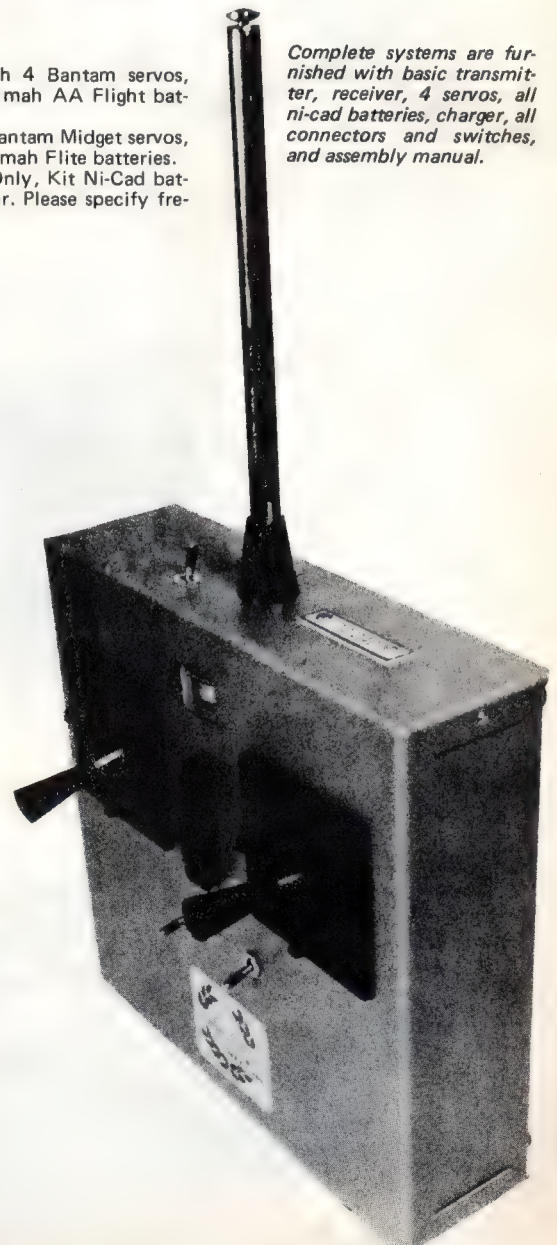
These options may be purchased separately.

### OPTIONS

**I. EXPONENTIAL RATE**  
This plug-in option provides non-linear servo travel in relation to stick movement so there is less servo excursion around neutral, giving it a softer feel; yet full servo excursion is available when the stick is moved to the extremes.  
Can be incorporated on 1, 2, or 3 channels and can be externally engaged or disengaged via switches if desired.  
By changing some fixed resistor values, the slope of the exponential curve (degree of "softness") can be modified to the builder's personal preference.

**II. ELECTRONIC MIXER**  
With this plug-in module any two functions can be mixed together in one of two ways.  
"Uni-Directional" configuration is where control function "A" is mixed into control function "B" when the stick or lever for "A" is moved; but "B" is not mixed into "A" when the stick or lever for "B" is moved. This would be a situation where two controls are to be mixed, yet one must still operate independently. For example, coupled elevator and flaps will permit the flaps to move with elevator control for square maneuvers and yet flaps would remain independent. Also, for coordinated turns, where rudder is affected by aileron movement and yet would be independently operational for ground handling and snap or spin maneuvers.  
The "Bi-Directional" configuration is where "A" is mixed into "B" and "B" is mixed into "A". This would be for turn and elevator control in a "V" tail plane, elevons on deltas, flaperons on gliders, R/C tanks, etc.  
Both configurations can be controlled by an optional externally accessible switch to engage or disengage the functions; also, the input gain of each mixed channel and the balance of the mix is adjustable for quick set-up.

**III. PROGRAMMABLE PUSH BUTTONS**  
In-flight adjustable pre-programmed control surface movement may be obtained by pushing a button which can be positioned on the transmitter case at the builder's discretion. Any number can be added to give a roll button, spin button, low throttle button, snap button, etc.  
Two basic configurations are available: one that will affect just one channel (I) when the button is pushed and the other will affect two channels (II), each of which is independently programmable.  
These two configurations can be wired one of two ways depending on the maneuver. In the one mode, the control stick will not affect the pre-programmed position no matter what position it is in; and the other way, the pre-programmed position can be modified by moving the stick. In any event, after the button is programmed, the adjustment knob can be moved to prevent inadvertent tampering with the adjustment.





# AIRTRONICS





## puts you in complete control...

### AIRTRONICS XL SERIES RADIO CONTROL SYSTEMS,

A NEW LINE OF RADIOS ENGINEERED TO SATISFY THE REQUIREMENTS OF TODAY'S MORE SOPHISTICATED PILOTS.

Designed and produced to the same high standards of quality and performance that have made AIRTRONICS kits world famous, our new XL Series is an outstanding value. These new generation radio systems use the latest IC technology of Signetics, backed by the experience and design skills of Sanwa and Airtronics. The

radios provide many of the features previously found in the most expensive, professional level radios at prices normally associated with simple sport radios. Compare this outstanding system to any other available and you'll agree that it's an amazing value. Order today!

*We know that you'll be impressed when you check these features:*

- Contemporary styled metal housing with brushed aluminum finish for all systems.
- New stick assemblies with open gimbal design and dust closures. External tension and stick length adjustments let you customize stick feel to suit your own touch.
- Plug-in RF module with plug-in receiver crystal for convenient frequency change. Compatible with all existing or proposed AMA/FCC frequencies.
- Linear and exponential control functions on all systems.
- Exponential function includes convenient servo throw adjustment.
- Servo reversing switches on all channels of all systems.
- Conductive plastic potentiometers with multiple wipers for increased reliability on all stick functions.
- New wheel control system with throttle/brake centering, posi-grip wheel rim, including plug-in RF module and servo reversing switches is available for car and boat applications.
- All 2, 3, and 4 channel systems are designed to be factory expandable up to 6 channels as your needs require.

**A TOUCH OF CLASS** — For your convenience and easy accessibility all secondary controls are concealed behind this access panel located on the front of the transmitter. This feature, previously found only on much higher priced R/C Systems, eliminates the need of removing the back panel to make adjustments... and provides you with more time for flying.



To match the advanced features and technology of the transmitter all XL Series Radios include a brand new airborne system. New receivers, servo connectors and accessories have been designed which provide exciting new performance features.

The subminiature receiver volume is less than 2.5 cubic inches and weighs less than 1.4 ounces. Brand new IC technology and a double tuned front end provide superb sensitivity, and we've created a new miniature servo which is furnished as standard with all systems. It has plenty of power — almost 30 inch-ounces of torque — plus fast transit time in a package which weighs less than .9 ounces.

In addition we have a complete line of special purpose servos for every application.

Please watch for our ads in the coming months for more detailed descriptions of these items.

#### SERVICE

The XL Series radios have been designed and thoroughly tested by experienced modelers to assure quality performance. Over the years we've learned, too, that the servicing of a product is equally as important as its performance. We are dedicated to providing you with service that will maintain your Airtronics R/C system at the same high level of operation for which it was originally designed.

See pages 202 and 203 for more information and prices on Airtronics XL equipment.



FULL ONE YEAR LIMITED WARRANTY ON ALL XL SYSTEMS

# AIRTRONICS

12160 Woodruff Avenue, Downey, California 90241

Telephone (213) 862-6583

A DIVISION OF LEISURE DYNAMICS HOBBIES, INC.



# AIRTRONICS XL SERIES



**XL 9160 6 CHANNEL:** This system includes a dual-stick transmitter, 4 mini servos, mini receiver, nicad transmitter and receiver batteries, dual charger, switch harness, servo trays and hardware.



**XL 9140 4 CHANNEL:** This 4 channel comes with a dual-stick transmitter, 4 mini servos, mini receiver, nicad TX and RX batteries, dual charger, switch harness, servo trays and hardware.



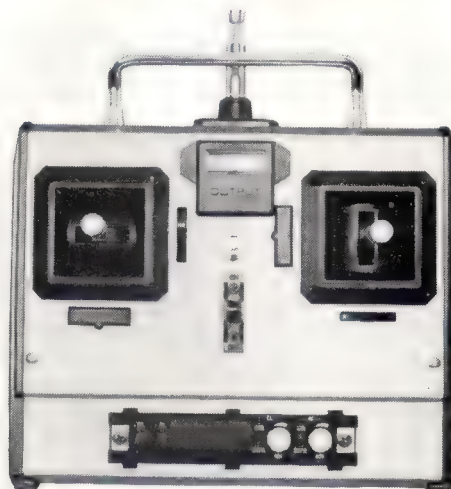
**XL 9130 3 CHANNEL:** Included in this set is a dual-stick transmitter, 2 mini servos, receiver battery case, switch harness, servo trays and hardware.





## XL 9120 2 CHANNEL

Pictured is the single-stick transmitter. Also included in this system are 2 mini servos, mini receiver, switch harness, receiver battery case, servo trays and hardware.



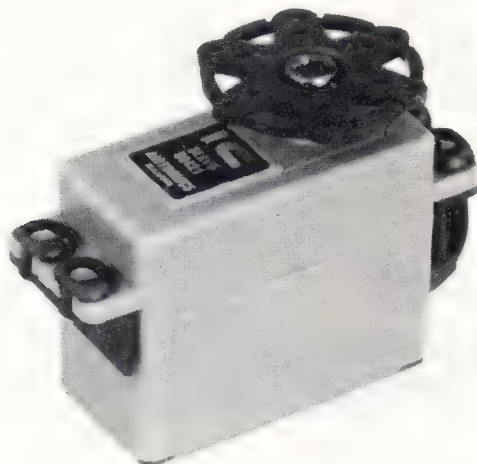
## XL 9122 2 CHANNEL

Shown above is the dual-stick transmitter with the cover removed so you can see the servo reversing switches and the exponential controls. The flight pack is the same as the 9120.



## XL 9121 2 CHANNEL

This system features a transmitter with posi-grip wheel rim and throttle/brake centering. The system comes with same flight pack as the 9120 and 9122.



## XL 9131 3 CHANNEL

This 3 channel radio is so new that we didn't have a picture of it at the time this catalog was being made. It is similar in appearance to the 9121 2 channel with the wheel control stick. The 9131 is different in that the wheel has linear-exponential adjustment. The third channel is operated by a slide lever.

**FREQUENCY CHANGES:** The frequency of the XL radios can be changed by replacing the transmitter and receiver crystals. Frequency changes can be done by this method only when changing to a frequency with the same band. To change your radio from the 72 mhz band to the 27 or 53 mhz band the transmitter module and the complete receiver must be replaced with the new frequency.

**ACCESSORIES:** Tower Hobbies stocks many accessories for the Airtronics XL Series such as flight packs, servo trays and arms, battery packs, extension cables, a variety of servos, etc. These are all listed below.

This mini servo comes as standard equipment in all of the Airtronics XL radio systems. It has dimensions of .7" x 1.15 x 1.44", weighs less than .9 oz., has 29.5 ounce/inch torque, and a .4 second transit time.

AIR81421	94401	SERVO-MICRO-8B, WATERPROOF	49.95	39.95	203
AIR81431	94421	SERVO-MINI	39.95	31.95	203
AIR81541	94551	SERVO-STD., 8B, WATERPROOF	49.95	39.95	203
AIR81543	94553	SERVO-8B, RETRACT	49.95	39.95	203
AIR81551	94509	SERVO-H.D., WATERPROOF	49.95	39.95	203
AIR81561	94581	SERVO-SAIL WINCH	64.95	51.95	203
AIR82200	98200	SERVO TRAY-MICRO-MINI	1.50	1.45	203
AIR82202	98202	SERVO TRAY-AILERON-STD.	1.50	1.45	203
AIR82210	98210	SERVO TRAY-MINI-2+1	2.50	2.40	203
AIR82212	98212	SERVO TRAY-STD.-2+1	2.50	2.40	203
AIR82221	98221	SERVO TRAY-MICRO-SXS	2.50	2.40	203
AIR82231	98231	SERVO TRAY-STD.-3 SXS	2.50	2.40	203
AIR82301	98301	SERVO ARM-MICRO-4&6POINT	.75	.70	203
AIR82302	98302	SERVO ARM-MICRO-4 POINT	.75	.70	203
AIR82303	98303	SERVO ARM-MICRO-ACJUST.	1.50	1.45	203
AIR82311	98311	SERVO ARM-STD.-4&6 POINT	.75	.70	203
AIR82314	98314	SERVO ARM-STD.-ADJUSTBLE	1.50	1.45	203
AIR83002	95002	RX NICAD-FLAT 225MA	15.95	13.55	203
AIR83003	95003	RX NICAD-SQUARE 500MA	15.95	13.55	203
AIR83004	95004	RX NICAD-FLAT 500MA	15.95	13.55	203
AIR83005	95005	RX NICAD-FLAT 1200MA	24.95	21.20	203
AIR83010	95010	TX NICAD-9.6V 500MA	32.95	27.95	203
AIR83101	97001	SW HARNESS W/CHARGE JACK	5.95	5.45	203
AIR83110	97010	6 IN. EXTENSION CABLE	3.50	3.30	203
AIR83111	97011	12 IN. EXTENSION CABLE	3.95	3.75	203

AIR83120	97020	SERVO DUAL 'Y' HARNESS	4.95	4.50	203
AIR83130	97030	DRY BATTERY TEST CABLE	2.95	2.80	203
AIR85522	AIR. 9922	FLITE PK-2CH/2SERVOS	114.95	89.95	203
AIR85532	AIR. 9932	FLITE PK-3CH/2SERVOS	119.95	92.95	203
AIR85542	AIR. 9942	FLITE PK-4CH/2SERVOS	149.95	116.95	203
AIR85564	AIR. 9964	FLITE PK-6CH/4SERVOS	229.95	178.95	203
AIR85720	AIRTRONICS 92720	2 CH RECEIVER	54.95	43.95	203
AIR85730	AIRTRONICS 92730	3 CH RECEIVER	59.95	47.95	203
AIR85740	AIRTRONICS 92740	4 CH RECEIVER	69.95	55.95	203
AIR85760	AIRTRONICS 92760	6 CH RECEIVER	89.95	71.95	203
AIR88211	AIRTRONICS 9120	2CH/2SER/1 ST	149.95	119.95	203
AIR88221	AIRTRONICS 9121	2CH/2SER/WHEEL	149.95	119.95	203
AIR88232	AIRTRONICS 9122	2CH/2SER/2 ST	149.95	119.95	203
AIR88312	AIRTRONICS 9130	3CH/2SER/2 ST	169.95	135.95	202
AIR88321	AIRTRONICS 9131	3CH/2SER/WHEEL	219.95	172.95	203
AIR88412	AIRTRONICS 9140	4CH/4SER/2 ST	279.95	219.95	202
AIR88612	AIRTRONICS 9160	6CH/4SER/2 ST	329.95	259.95	202
AIR89721	AIRTRON. 93721	CRYSTALS 72.080	14.95	13.45	203
AIR89722	AIRTRON. 93722	CRYSTALS 72.160	14.95	13.45	203
AIR89723	AIRTRON. 93723	CRYSTALS 72.240	14.95	13.45	203
AIR89724	AIRTRON. 93724	CRYSTALS 72.320	14.95	13.45	203
AIR89725	AIRTRON. 93725	CRYSTALS 72.400	14.95	13.45	203
AIR89726	AIRTRON. 93726	CRYSTALS 72.960	14.95	13.45	203
AIR89751	AIRTRON. 93751	CRYSTALS 75.640	14.95	13.45	203



# Futaba Systems.



Pictured above is the Futaba FP-6FN 6 channel radio system with S-23 servos. The 4FN, 5FN, and 6FN systems are identical except for the extra channels added on the transmitters and receivers. The fifth channel on each of the 5 and 6 channel systems is fully proportional and is controlled by a slide lever on the front of the transmitter. The toggle switch 6th channel on the 6FN is normally used for retracts and is located on the top of the transmitter.

## 4FN, 5FN, and 6FN

Following is a list of identical features found on these three radio systems: transmitter, receiver, a built-in trainer system (trainer cord not included) that is activated by a push button on the right top of the transmitter (the 3 FN has this feature as well); open gimbal dual-sticks with dust covers, transmitter stand, neck strap, transmitter and receiver nicad batteries, dual battery charger, 4 S-16 or 4 S-23 servos, switch harness, servo trays and hardware.



## FUTABA

### 2GS



This 2 channel system includes a 2-stick transmitter, R2G receiver, dry cell battery cases, 2 S-23 servos, switch harness, servo trays, and hardware.

### 2E



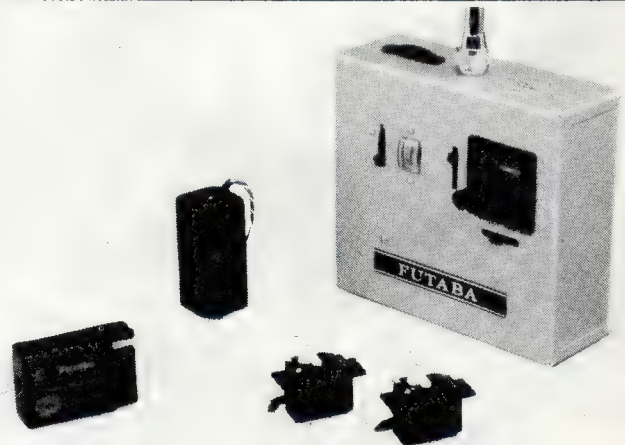
This 2 channel radio includes a dual-stick transmitter, R2F receiver, dry cell battery cases, 2 S-7 (pictured) or 2 S-23 servos, switch harness, servo trays, and hardware.

### 2F



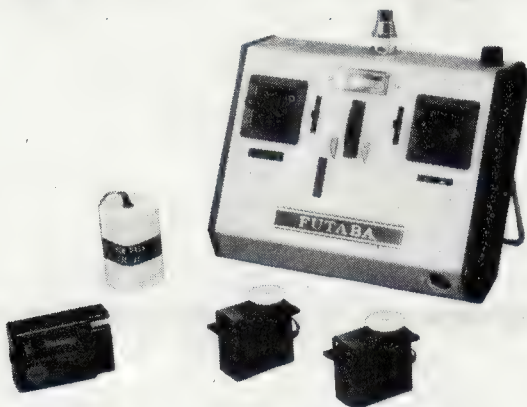
The 2F 2 channel system features T2F steering wheel transmitter, R2F receiver, dry cell battery cases, 2 S-23 or 2 S-7 servos (pictured), switch harness, servo trays and hardware.

### 3S



This 3 channel features an open-gymbal T3S single stick transmitter, R3F receiver, dry cell battery cases, 2 S-20 (pictured) or 2 S-23 servos, switch harness, servo trays and hardware.

### 3FN



This 3 channel system comes with an open-gymbal dual-stick transmitter, R3F receiver, full nicads and dual charger, 2 S-23 servos, switch harness, servo trays, hardware, and built-in trainer system.

### NEW

**3WN** This radio is coming soon but no picture was available at the time this was printed. This 3 channel system features a wheel control transmitter with exponential control on the wheel, full nicads and dual charger, slide lever 3rd channel, 1 S-7 and 1 S-24 servo, switch harness, servo trays, and hardware. The transmitter looks like a 2F except that it is black in color.

All Futaba radio systems feature a 180 day warranty. Futaba has an excellent reputation for fast and very inexpensive service. This is one of the reasons they're the most popular brand in the United States.

See pages 208 and 209 for Futaba servos, flight packs, receivers, and accessories. See page 209 for all Futaba prices and stock numbers.



## FUTABA

The FP-4L is our most amazing new system in years. An RC enthusiast's dream come true, the 4L offers traditional Futaba performance and value in a remarkably economical package.

It was tough, though, building an easily affordable system that can live up to the Futaba name. But we still loaded it with features destined to make it a favorite with all kinds of flyers.



The Futaba 4L system is perfect for all types of sport and pattern aircraft.

The lightweight T4L transmitter is equipped with our sensational new Gyro Gimbal control sticks for precise acrobatics and has built-in carrying handle and telescopic antenna.

Three powerful S23 servos are also included, plus our signal-grabbing double-tuned, RF amplified, four-channel receiver.

And the FP-4L boasts full NiCad op-

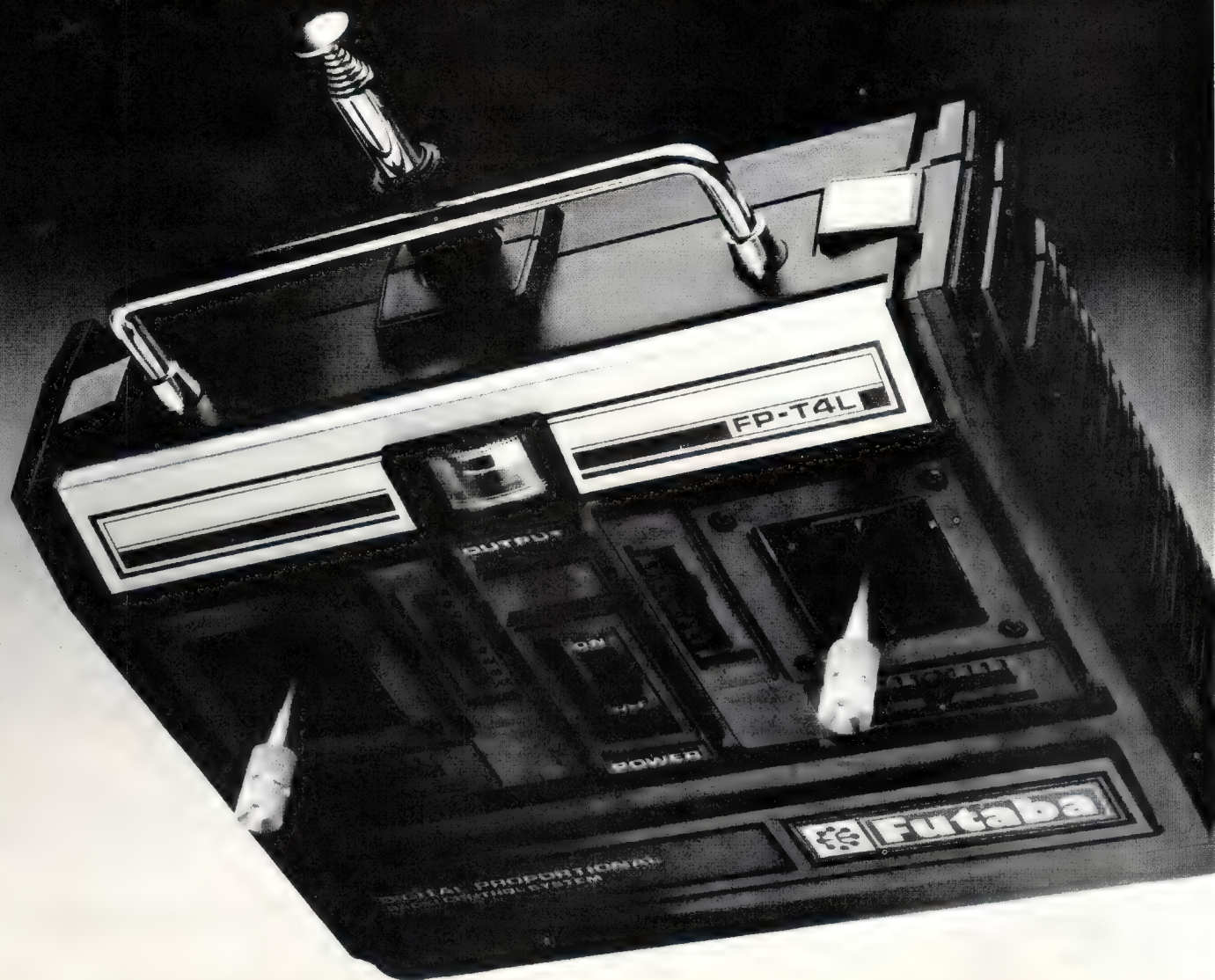
eration and a separate dual charger.

A perfect second system. An ideal system for the novice. Unsurpassed quality and service. The FP-4L. Now you can afford a Futaba.



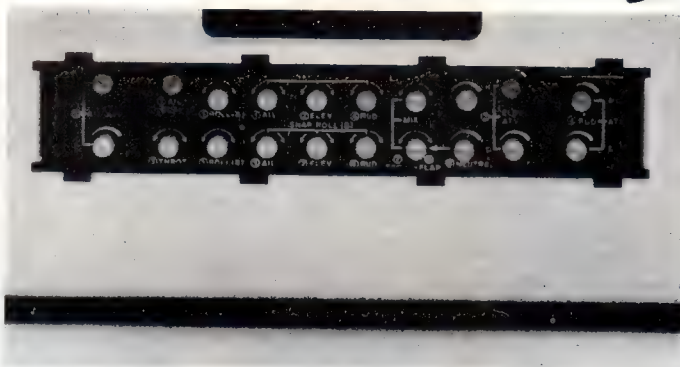
Included in the 4L system are 3-S23 servos, an R4F receiver, full NiCads and a dual NiCad charger.

# The FP-4L. Four channels of Futaba at a price you can't afford to ignore.

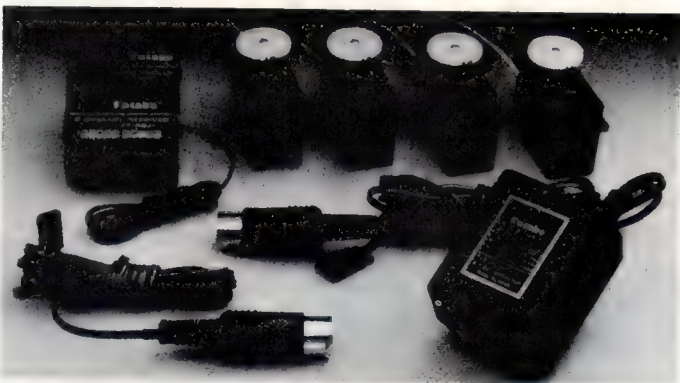




# The Futaba J Series



The Control Panel of the 8JN contains 20 programmable settings to fine tune your pattern performance.



All J-Series systems are equipped with Futaba's latest S121 dust and watertight, dual ball bearing servos, a Direct Servo Control cord and dual Nicad charger.

## Transmitter

(T4JN, T5JN, T6JN and T8JN)

Modular RF boards for instant frequency band and modulation changes.

Direct Servo Control allows servo operation and adjustment with the transmitter turned off.

Self-contained servo reverse switching.

Adjustable length, open gimbal sticks for maximum feel.

Built-in antenna locks and couples with the first stage extended.

Brushed aluminum case, human engineered for optimum comfort and control.

(T8JN only)

Adjustable Limit throttle control

Elevator and Flap mixing

Flap and Spoiler mixing

Two roll and two snap roll buttons

Servo non-linearity control

## Servos/S121

Compact, lightweight and rugged

3.0kg./cm. output torque

Dual ball bearings support output shaft for smooth, precise action.

Waterproof, dustproof case design

Special 16mm micromotor

## Receiver/R6J

Modular design for rapid frequency band and modulation changing.

Vibration and shock resistant

## Complete Systems:

### FP-4JN

4 Channels/4-S121 servos/Direct Servo Control  
Servo reverse switching/FP-R6J Receiver  
Airborne and transmitter NiCads/Dual Charger

### FP-5JN

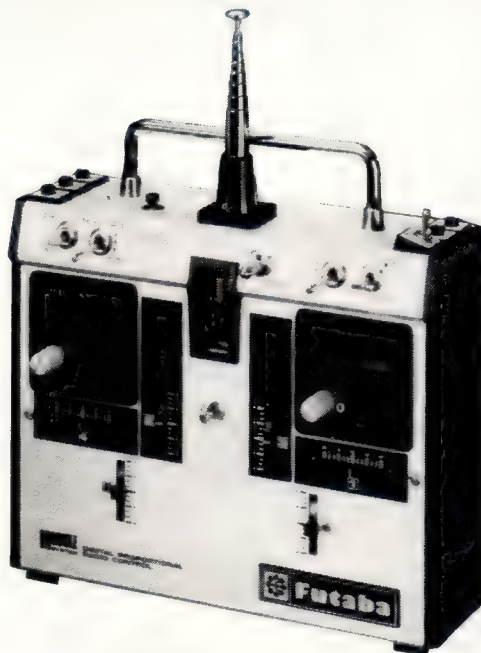
5 Channels/4-S121 servos/Direct Servo Control  
Servo reverse switching/Landing gear switch  
FP-R6J Receiver/Airborne and transmitter  
NiCads/Dual Charger

### FP-6JN

6 Channels/4-S121 servos/Direct Servo Control  
Servo reverse switching/Landing gear switch  
Flap trim lever/Elevator-Flap mixing switch  
FP-R6J Receiver/Airborne and transmitter  
NiCads/Dual Charger

### FP-8JN

8 Channels/4-S121 servos  
Direct Servo Control/Servo reverse switching  
Landing gear switch/Flap trim lever/Channel 7  
switch/Channel 8 lever/Two-way mixing  
2-roll and 2-snap roll buttons/3-Non-linear  
servo controls/FP-R6J Receiver/Airborne  
and transmitter NiCads/Dual Charger



(8JN pictured)

See page 209 for all Futaba prices.



## FUTABA

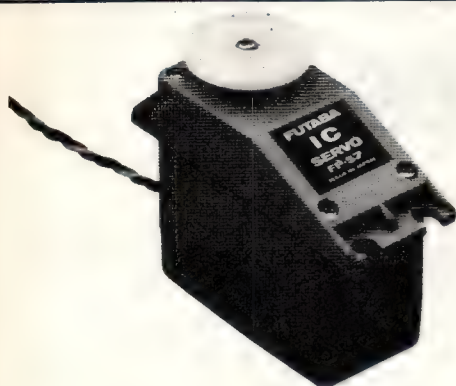
# Futaba Servos.

In addition to the standard servos included in our complete systems, we offer a wide variety of special function servos.

Each is a highly sophisticated, electronic component designed for exceptional performances and reliability.

Check the requirements of your model carefully and select the Futaba servos to customize your system.

(Note: Standard Futaba servos are not interchangeable with J-series systems.)



**S7/Heavy Duty/  
Water Tight  
S7L/reverse S7**

Dimensions:  
.9" x 1.73" x 1.62"  
Weight: 1.7 oz.  
Torque: 41.7 oz./in.



**S8/Heavy duty  
retract**

Dimensions:  
.9" x 1.73" x 1.62"  
Weight: 1.7 oz.  
Torque: 111.1 oz./in.



**S10/Sail winch**

Dimensions:  
3.5" x 1.5" x 2.93"  
Weight: 8.8 oz.  
Torque: 21.8"  
stroke 3.8"/sec.



**S11/Linear action**

Dimensions:  
.75" x 1.75" x 1.5"  
Weight: 1.4 oz.  
Torque: 25.1 oz./in.



**S14/High torque**

Dimensions:  
3.5" x 2.93"  
Weight: 8.8 oz.  
Torque: 167 oz./in.



**S16/Mini  
S16L/reverse S16**

Dimensions:  
1.63" x 1.4" x .75"  
Weight: 1.5 oz.  
Torque: 27.8 oz./in.



**S20/Ultra mini  
S20L/reverse S20**

Dimensions:  
1.19" x 1.13" x .69"  
Weight: .85 oz.  
Torque: 22.2 oz./in.



**S21/Ball Bearing**

Dimensions:  
1.56" x 1.26" x .76"  
Weight: 1.26 oz.  
Torque: 41.2 oz./in.



**S22/Standard  
heavy duty**

Dimensions:  
.9" x 1.73" x 1.67"  
Weight: 1.8 oz.  
Torque: 32.0 oz./in.



**S23/Standard  
S23L/reverse S23**

Dimensions:  
1.57" x 1.55" x .78"  
Weight: 1.5 oz.  
Torque: 27.8 oz./in.

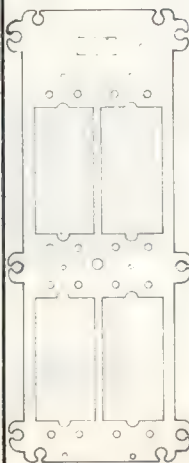


**S24/High Speed,  
High Torque**

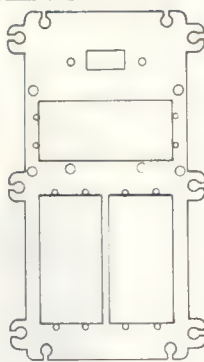
Dimensions:  
.88" x 1.5" x 1.81"  
Weight: 2.1 oz.  
Torque: 62.7 oz./in.

See price listings on page 209 for many more Futaba accessories such as servo arms, gears, cases, batteries, chargers, switch harnesses, extension wires, antennas, crystals, etc.

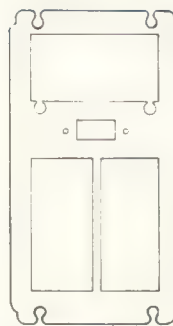
## SERVO TRAYS



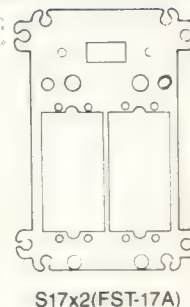
S16x4(FST-16A)



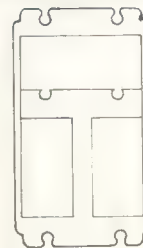
S17x3(FST-17T)



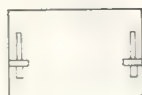
S16x3(FST-16T)



S17x2(FST-17A)



S20x3(FST-20T)



S20H



S16H



S20V



S16V



S17B



S16B



## Airborne Systems

### FAP-64/S23

6 channel receiver (FP-R6F), 3-S23 and 1-S23L servo, receiver NiCad battery pack (NR-4C), switch harness, servo trays and hardware.

### FAP-64/S16

Same as FAP-64/S23 except 3-S16 and 1-S16L servo

### FAP-42/S23

4 channel dual conversion receiver (FP-R4F), 2-S23 servos receiver NiCad battery pack (NR-4C), switch harness, servo trays and hardware.

### FAP-42/S16

Same as FAP-42/S23 except 2-S16 servos.

### RECEIVERS

#### FP-R6F

6-Ch RF amplified  
1.57"x2.72"x.74"  
1.9 oz.  
10mA@4.8v

#### FP-R3F

3-Ch RF amplified  
1.57"x2.30"x.74"  
1.6 oz.  
10mA@4.8v

#### FP-R4F

4-Ch RF amplified  
1.57"x2.30"x.74"  
1.7 oz.  
10mA@4.8v

#### FP-R2F

2-Ch RF amplified  
1.57"x2.30"x.74"  
1.6 oz.  
10mA@6.0v

### FAP-32/S23

3 channel receiver, 2-S23 servos, receiver NiCad battery pack (NR-4C), switch harness, servo trays and hardware.

### FAP-32/S16

### FAP-32/S23

Same as FAP-32/S23 except 2-S16 or S20 servos.

### FAP-22/S22

### FAP-22/S23

2 channel receiver (FP-R2F), 2-S22 or S23 servos, receiver dry cell battery case, switch harness, servo trays and hardware.

### FAP-22/S16

### FAP-22/S7

Same as FAP-22/S22 except 2-S16 or S7 servos.

## COMPLETE TX AND RX NICAD CONVERSION

**FBPK-2:** 1-NT-10, 1 NR-4C, and dual charger. Converts 7 cell transmitter systems to all-nicad systems.

## Accessories

### SPEED CONTROL SYSTEMS

#### FP-MC5

Mini-speed controller. Power source: 6-7.2, weight 4.5 oz.

#### FP-MC4

Proportional speed control unit.

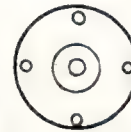
#### FP-MC4-P10

10 AMP power driver.

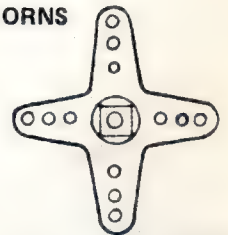
#### FP-MC4-P20

20 AMP power driver.

### SERVO HORNS



FSH-4W



FSH-4X

FUT81121	FUTABA FP-S121 SERVO-J SERIES	49.95	42.50	207	FUT86622	FUTABA NR-4G 4.8V 225MA NI-CAD	15.95	13.55	209
FUT81122	FUTABA FP-S121G RETRACT SRVO-J	54.95	45.95	207	FUT86650	NR-4C 4.8V 500MA SQUARE NI-CAD	15.95	13.55	209
FUT81140	FUTABA FP-S14 SERVO-MI TORQUE	89.95	71.95	208	FUT86651	NR-4EA 4.8V 500 MA FLAT NI-CAD	15.95	13.55	209
FUT81160	FUTABA FP-S16 SERVO - MINI	39.95	32.95	208	FUT86660	FUTABA NT-8C 9.6V TX NI-CAD	29.95	25.45	209
FUT81161	FUTABA FP-S16L SERVO - REVERSE	39.95	32.95	208	FUT86670	FUTABA NR-4H RX NICAD J SERIES	15.95	13.55	209
FUT81200	FUTABA FP-S20 SERVO-ULTRA MINI	39.95	32.95	208	FUT86680	AB0020 CHARGE CCRD FBC-2/TX	2.80	2.65	209
FUT81201	FUTABA FP-S20L SERVO-ULTRAMINI	39.95	32.95	208	FUT86682	AB0035 CHARGE CCRD FBC-2/NR4C	2.80	2.65	209
FUT81210	FUTABA FP-S21 SERVO-BB,HD,MINI	49.95	40.95	208	FAP-22A	2CH AIRBORN PK 2/16,7	104.95	78.70	209
FUT81220	FUTABA FP-S22 SERVO-STANDARD	29.95	24.95	208	FAP-22B	2CH AIRBORN PK 2/22,23	84.95	63.70	209
FUT81230	FUTABA FP-S23 SERVO-STANDARD	29.95	24.95	208	FAP-32A	3CH AIRBORN PK 2/16,7	134.95	101.20	209
FUT81231	FUTABA FP-S23L SERVO-REVERSE	29.95	24.95	208	FAP-32B	3CH AIRBORN PK W/2 S23	114.95	86.20	209
FUT81240	FUTABA FP-S24 SERVO-BB,HI-TORQ	59.95	47.95	208	FAP-32C	3CH AIRBORN PK W/2 S20	134.95	101.20	209
FUT81670	FUTABA FP-S7 SERVO WATER-TIGHT	39.95	32.95	208	FAP-42A	4CH AIRBORN PK W/2 S16	149.95	111.95	209
FUT81671	FUTABA FP-S7L SERVO - REVERSE	39.95	32.95	208	FAP-42B	4CH AIRBORN PK W/2 S23	129.95	97.45	209
FUT81680	FUTABA FP-S8 RETRACT SERVO	44.95	36.95	208	FAP-64A	6CH AIRBORN PK W/4 S16	234.95	165.00	209
FUT81710	FUTABA FP-S10 SERVO-SAIL WINCH	89.95	71.95	208	FAP-64B	6CH AIRBORN PK W/4 S23	199.95	139.95	209
FUT81711	FUTABA FP-S11 SERVO - LINEAR	39.95	32.95	208	FUT87020	FUTABA FP-R2F RECEIVER-2 CHAN.	54.95	43.95	209
FUT82623	FUTABA TRAY FST-4V S-7-22 VERT	1.00	.95	209	FUT87030	FUTABA FP-R3F RECEIVER-3 CHAN.	64.95	51.95	209
FUT82630	FUTABA TRAY FST-16A 4-SXS	3.00	2.85	208	FUT87040	FUTABA FP-R4F RECEIVER-4 CHAN.	79.95	63.95	209
FUT82631	FUTABA TRAY FST-16T 2X1 'T'	2.50	2.45	208	FUT87060	FUTABA FP-R6F RECEIVER-6 CHAN.	99.95	74.95	209
FUT82632	FUTABA TRAY FST-16H HORIZONTAL	1.00	.95	208	FLT88321	FUTABA FP-2F 2 CH/2 S-7/WHEEL	149.95	102.95	205
FUT82633	FUTABA TRAY FST-16V VERTICAL	1.00	.95	208	FLT88322	FUTABA FP-2E 2 CH/2 S-7/2 ST	149.95	102.95	205
FUT82634	FUTABA TRAY FST-16B SINGLE	1.50	1.45	208	FLT88323	FUTABA FP-2GS 2 CH/2 S-23/2 ST	109.95	77.95	205
FUT82640	FUTABA TRAY FST-17A 2-SXS	1.50	1.45	208	FLT88325	FUTABA FP-2F 2 CH/2 S-23/WHEEL	134.95	93.95	205
FUT82644	FUTABA TRAY FST-17B SINGLE	1.00	.95	208	FLT88326	FUTABA FP-2E 2 CH/2 S-23/2 ST	134.95	93.95	205
FUT82645	FUTABA TRAY FST-17T 2X1 'T'	2.50	2.35	208	FLT88330	FUTABA FP-3S 3 CH/2 S-23/1 ST	144.95	99.95	205
FUT82650	FUTABA TRAY FST-20H HORIZONTAL	1.00	.95	208	FLT88331	FUTABA FP-3S 3 CH/2 S-20/1 ST	169.95	114.95	205
FUT82651	FUTABA TRAY FST-20T 2X1 'T'	2.50	2.45	208	FLT88335	FUTABA FP-3FN 3 CH/2 S-23/2 ST	219.95	144.95	205
FUT82652	FUTABA TRAY FST-20V VERTICAL	1.00	.95	208	FUT88336	FUTABA FP-3WN 3CH/1-7,1-24/WHL	239.95	155.95	205
FUT83300	FUTABA PPC-3MF M/F CONN W/WIRE	3.50	3.35	209	FUT88341	FUTABA FP-4FN 4 CH/4 S-23/2 ST	289.95	187.95	204
FUT83305	FUTABA FSH-4W SERVO HORN WHEEL	.75	.70	209	FLT88344	FUTABA FP-4FN 4 CH/4 S-16/2 ST	319.95	207.95	204
FUT83306	FUTABA FSH-4X SERVO HORN X	.75	.70	209	FLT88345	FUTABA FP-4L 4 CH/3 S-23/2 ST	199.95	149.95	206
FUT83326	FUTABA FSH-26 ACES PK S7,17,18	2.00	1.90	209	FLT88352	FUTABA FP-5FN 5 CH/4 S-16/2 ST	359.95	233.95	204
FUT83328	FUTABA FSH-28 ACCESS PK S16	2.00	1.90	209	FUT88353	FUTABA FP-5FN 5 CH/4 S-23/2 ST	329.95	213.95	204
FUT83329	FUTABA FSH-29 ACCESS PK S20	2.00	1.90	209	FLT88361	FUTABA FP-6FN 6 CH/4 S-23/2 ST	339.95	217.95	204
FUT83340	FUTABA ABO410 TX ANTENNA 3-6CH	5.95	5.75	209	FLT88362	FUTABA FP-6FN 6 CH/4 S-16/2 ST	369.95	236.95	204
FUT83602	FUTABA AEC-1 AILERON EXTENSION	2.95	2.80	209	FUT88642	FUTABA FP-4JN	399.55	259.95	207
FUT83605	FUTABA SWH-1 SWITCH HARNESS	5.95	5.75	209	FLT88652	FUTABA FP-5JN	449.95	336.95	207
FUT83606	FUTABA AEC-2 Y HARNESS	3.95	3.75	209	FUT88662	FUTABA FP-6JN	549.95	409.95	207
FLT83610	FUTABA TRAINER CORD	6.95	6.25	209	FUT88682	FUTABA FP-8JN	699.95	519.95	207
FUT83616	FUTABA FCS-16 S-16 CASE SET	3.00	2.85	209	FLT89621	FUTABA FMC-21 CRYSTALS 26.995	8.95	8.50	209
FUT83626	FUTABA FGS-17 GR. SET S6,17,18	2.00	1.95	209	FLT89622	FUTABA FMC-22 CRYSTALS 27.045	8.95	8.50	209
FLT83627	FUTABA FGS-7 GEAR SET S7,22	2.00	1.95	209	FLT89623	FUTABA FMC-23 CRYSTALS 27.095	8.95	8.50	209
FLT83629	FUTABA FGS-16 GEAR SET S16	2.50	2.45	209	FLT89624	FUTABA FMC-24 CRYSTALS 27.145	8.95	8.50	209
FLT83632	FUTABA FGS-23 GEAR SET S23	2.00	1.90	209	FLT89625	FUTABA FMC-25 CRYSTALS 27.195	8.95	8.50	209
FUT83704	FUTABA FPMC4 SPEED CONTROL	24.95	20.95	209	FLT89671	FUTABA FMC-71 CRYSTALS 72.080	11.95	11.50	209
FLT83705	FUTABA FPMC5 MINI SPEED CONTRL	59.95	49.95	209	FLT89672	FUTABA FMC-72 CRYSTALS 72.160	11.95	11.50	209
FLT83710	FPMC10 10AMP PCWR DRIVE	59.95	49.95	209	FLT89673	FUTABA FMC-73 CRYSTALS 72.240	11.95	11.50	209
FLT83720	FPMC20 20AMP PCWR DRIVE	79.95	63.95	209	FLT89674	FUTABA FMC-74 CRYSTALS 72.320	11.95	11.50	209
FLT86600	FUTABA FBPK-2 NICAD CONV.-2F	55.95	44.75	209	FLT89675	FUTABA FMC-75 CRYSTALS 72.400	11.95	11.50	209
FLT86602	FUTABA FBC-2A DUAL CHARGER	12.95	10.95	209	FUT89676	FUTABA FMC-76 CRYSTALS 72.960	11.95	11.50	209
FLT86604	FUTABA FBC-2L DUAL CHARGER 'J'	13.95	11.85	209	FUT89677	FUTABA FMC-77 CRYSTALS 75.640	11.95	11.50	209
FUT86610	FUTABA AA0312 RX DRY CELL CASE	4.95	4.70	209					



**JR**

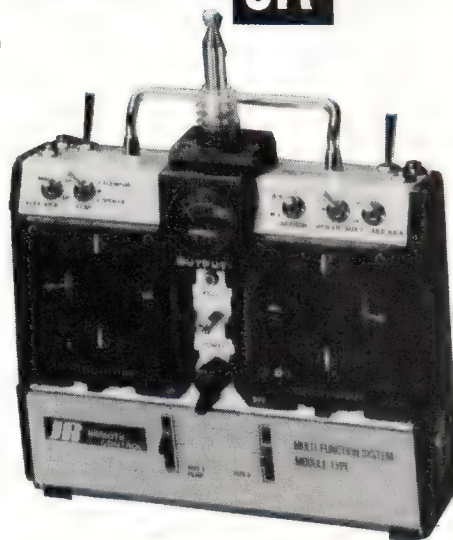
## J8C-4SF

The world's first Selectable Function Combination Device.

The landing operation of a multi-function airplane (Flaps or Flap Elevator mixing, Spoilers, Spoiler-Flaps mixing, Aileron and Elevator Dual Rate switching) for example, require individual attention to each function. With a selectable function combination device, these functions can be combined and controlled simultaneously with a single switch, thereby allowing the flyer to concentrate on the stick operation.

When flying at full throttle and you try to perform a delicate maneuver such as a slow roll, you are apt to over control the rudder. No more! With the Selectable Function Combination Device (SFCD) you can couple the rudder with the throttle and when switched ON, at any point above 80% throttle, the rudder enters dual rate automatically and deflects very little; as the throttle setting is reduced, the rudder deflection is increased so that at idle full deflection of the rudder is obtained.

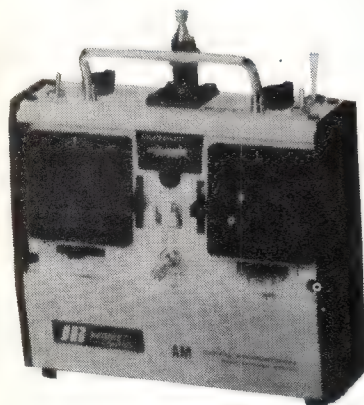
If two servos are wired in parallel and used for the aileron control on an airplane without flaps, the ailerons can function as flaps (Flapron) using the SFCD. In addition, they can be interlocked with the elevator. The SFCD makes airplanes with V-Tails or without a tail (Delta Wings), very simple, since special devices or complicated linkage is not required.



- **SPECIAL EQUIPMENT**
- Flap Spoiler Mixing Device (Adjustable)
- Two-step Aileron Kick-up (Dual Rate)
- Rudder Kick-up (Dual Rate) w/Throttle interlock
- Elevator Kick-up (Dual Rate)
- Elevator FLAP Mixing Device
- Three-step Snap Roll Button
- Preset Throttle Button
- Reverse Switch (Throttle, Elevator, Rudder)
- Servo Throw Adjustment (Aileron, Elevator, Rudder)
- DSC (Direct Servo Control) Device

### STANDARD EQUIPMENT

Transmitter, receiver, 4 standard servos, full nicads and charger, switch harness, servo trays and hardware, and frequency flag.



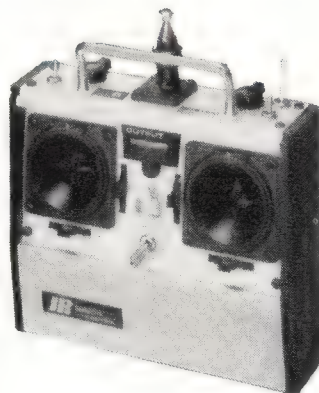
## 7C-4SH

This 7 channel radio has seven functions which include spoiler system, flap mixing and Kick-up (Dual Rate). This system is most widely used by contest flyers and is very popular among scale model enthusiasts.

- **SPECIAL EQUIPMENT**
- Spoiler System
- Flap Mixing System
- Aileron Kick-up Device (Dual Rate)
- Elevator Kick-up Device (Dual Rate)

### STANDARD EQUIPMENT

Transmitter, receiver, 4 standard servos, full nicads and charger, switch harness, servo trays and hardware, and frequency flag.



## 7C-4SF

This is a 7 channel radio with seven functions which include the Kick-up (Dual Rate) function. Since the neutrals are not affected by switching the Kick-up device Off and On, it is also very popular among the contest flyers and scale model enthusiasts.

- **SPECIAL EQUIPMENT**
- Aileron Kick-up (Dual Rate)
- Elevator Kick-up (Dual Rate)
- Monitor Earphone

### STANDARD EQUIPMENT

Transmitter, receiver, 4 standard servos, full nicads and charger, switch harness, servo trays and hardware, and frequency flag.



## 6C-4S

This is a standard 6 channel radio and is very popular with the budding stunt flyer.

### STANDARD EQUIPMENT

Transmitter, receiver, 4 standard servos, full nicads and charger, switch harness, servo trays and hardware, and frequency flag.



## 6C-4SF

This 6 channel radio has six functions with Kick-up (Dual Rate) and Flap Interlocking device. This radio is most widely used by stunt flyers.

- **SPECIAL EQUIPMENT**
- Flap Interlocking
- Aileron Kick-up (Dual Rate)
- Elevator Kick-up (Dual Rate)
- Monitor Earphone

### STANDARD EQUIPMENT

Transmitter, receiver, 4 standard servos, full nicads and charger, switch harness, servo trays and hardware, and frequency flag.



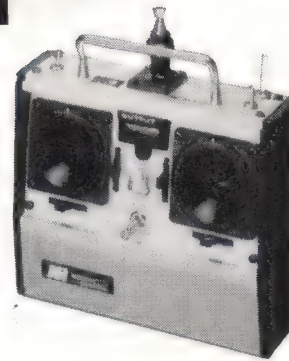
## JR



### 5C-4S

This is a standard 5 channel radio and is the most popular among Sunday flyers.

**STANDARD EQUIPMENT**  
Transmitter, receiver, 4 standard servos, full nicads and charger, switch harness, servo trays and hardware, and frequency flag.



### 5C-4SV

This is a 5 channel radio which has the same Kick-up Devices (Dual Rate) as the 7C-4SH. The moderate price makes this radio very appealing.

- SPECIAL EQUIPMENT**
- Aileron Kick-up (Dual Rate)
  - Elevator Kick-up (Dual Rate)

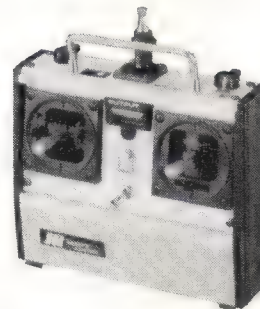
**STANDARD EQUIPMENT**  
Transmitter, receiver, 4 standard servos, full nicads and charger, switch harness, servo trays and hardware, and frequency flag.



### 4C-4S

This 4 channel radio is also very popular among the Sunday flyers who require only four controls but still want a high quality radio.

**STANDARD EQUIPMENT**  
Transmitter, receiver, 4 standard servos, full nicads and charger, switch harness, servo trays and hardware, and frequency flag.



### F4C-2SV

This 2 + 2 channel radio is ideally suited for power boats, cars, and airplanes. In addition to the two primary controls, there are also two auxiliary channels, one switchable and one proportional. A neutral transfer device is incorporated so that when one of the primary controls is used as a throttle the stick position can be shifted from center to the lower side of the stick assembly. Kick-up (Dual Rate) is also included making this the most versatile 2 + 2 channel radio on the market today.

**STANDARD EQUIPMENT**  
Transmitter, receiver, 2 economy ball bearing servos, full nicads and charger, switch harness, servo trays and hardware, and frequency flag.



### D4C-4S

This sport model 4 channel includes transmitter, receiver, 4 servos, full nicads, and charger, and necessary hardware.



### G2C-2S

This sport model 2 channel system includes transmitter, receiver, 2 servos, dry cell battery cases, and necessary hardware.



JR makes quite a large variety of servos to suit every need. The standard 101 servo is very economically priced and comes as standard equipment in most radio systems.

At the time this was printed JR radios were not yet available. As a result, there was not sufficient information to picture and describe additional radio accessories. As they become available we'll be stocking receivers, battery packs, servo trays, trim arms, switch harnesses, aileron extension wires, etc.

JRP81101	JR 101 SERVO-STANDARD,BB	39.95	31.95	211
JRP81103	JR 103 SERVO-180 C. RETRACT,BB	39.95	31.95	211
JRP81203	JR 203 SERVO-H.C. RETRACT,BB	44.95	35.95	211
JRP81501	JR 501 SERVO-STANDARD	29.95	25.45	211
JRP81601	JR 601 SERVO-ECONOMY	24.95	20.95	211
JRP81701	JR 701 SERVO-ECONOMY,BB	32.95	20.95	211
JRP81803	JR 3001 SERVO-MINI,BB	49.95	35.95	211
JRP81851	JR 1001 SERVO-CORELESS,BB	49.95	39.95	211
JRP81951	JR 1002 SERVO-HI SPEED,BB	49.95	39.95	211
JRP83005	JR RX BATTERY-SQUARE 500MA	16.95	14.40	211
JRP83010	JR RX BATTERY-FLAT 500MA	16.95	14.40	211
JRP83015	JR RX BATTERY-600MA	19.95	16.95	211

JRP83020	JR RX BATTERY-270MA	13.95	12.20	211
JRP88212	JR F4C-2SV 2+2 CH/2 SERVO/2 ST	269.95	179.95	211
JRP88412	JR 4C-4S 4 CH/4 SERVO/2 ST	389.95	248.95	211
JRP88512	JR 5C-4SV 5 CH/4 SERVO/2 ST	439.95	279.95	211
JRP88522	JR 5C-4S 5 CH/4 SERVO/2 ST	419.95	266.95	211
JRP88612	JR 6C-4SF 6 CH/4 SERVO/2 ST	499.95	314.95	210
JRP88622	JR 6C-4S 6 CH/4 SERVO/2 ST	499.95	314.95	210
JRP88712	JR 7C-4SF 7 CH/4 SERVO/2 ST	549.95	359.95	210
JRP88722	JR 7C-4SH 7 CH/4 SERVO/2 ST	539.95	339.95	210
JRP88812	JR J8C-4SF 8 CH/4 SERVO/2 ST	699.95	426.95	210
JRP88422	JR D4C-4S 4 CH/4 SERVO/2 ST	Price unavailable at press time		211
JRP88232	JR G2C-2S 2 CH/2 SERVO/2 ST	Price unavailable at press time		211



## KRAFT

### WHY SHOULD YOU BUY KRAFT?

Your choice of a radio control system is of great importance to your success in the hobby. Therefore, why should you buy a Kraft R/C product? One reason is that Kraft Systems has been around a lot longer than the other manufacturers and has originated most of the concepts which make possible radio control as it is today. This is your proof of the technical superiority and stability of the company behind the product.

Another is that over the years, Kraft has earned an unequalled reputation for service and dedication to

customer satisfaction. Kraft products are backed by a full one-year limited warranty on radio control systems and the industry's largest worldwide network of service centers.

Kraft offers the broadest line in the industry - whether you need a control proven top of the line set or a competitively priced quality unit, you can always be sure of receiving top value for your investment in a Kraft product. For technical superiority, service, quality and value, Kraft is an excellent choice in radio control.

## SPORT SERIES SYSTEMS

### SPORT SERIES TWO CHANNEL

The world market is flooded with low cost and low quality two channel radio control systems. However, the Kraft 2-channel Sport Series line stands alone by offering quality and precision performance that will satisfy the most demanding modeler. Compare the servo smoothness and resolution of the Kraft 2-channel sets with their competition and this alone should be enough to convince you of their superiority.

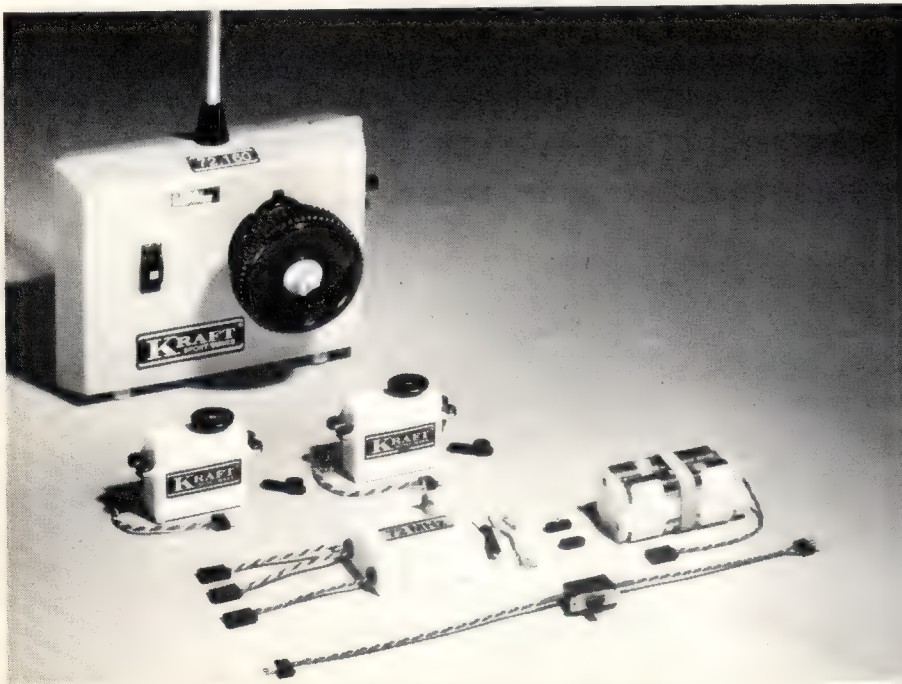
The systems have been especially designed for cars, boats, gliders, and

*Now the value conscious enthusiast can have the quality, reliability, and performance inherent in all Kraft products at highly competitive prices. The utility of the Sport Series line is further enhanced by the availability of a complete line of specially adapted accessories. The Sport Series is available on all 72 and 27 MHz frequencies.*

miniature powered aircraft. Three different transmitter configurations are available at the same price. For convenience, these sets feature plug-in receiver and transmitter crystals on the 27 MHz frequencies and receiver plug-in crystals on 72 MHz. The transmitter features a voltage output meter and built in battery recharging circuitry. These systems are designed to use standard pencil type batteries but can be easily owner converted to rechargeable batteries. An optional kit featuring snap-in transmitter battery pack, receiver battery pack, switch harness with charge receptacle and a charging transformer is available.

Kraft's two channel receiver is unquestionably the finest in its field. It features high "Q" shielded R.F. coils and voltage regulating circuitry permitting direct operation from the rechargeable batteries used to power electric cars, boats, and airplanes. The receiver antenna plugs in and special short length antennas are available for convenience in cars, boats, and small model airplanes.

Systems include: Transmitter, receiver, two KPS-14IIA servos, battery holders, and switch harness.



KP-2AS Single Stick. Great for gliders and miniature powered aircraft.



KP-2A Dual Stick. General purpose radio for all applications.

➤ KP-2AW Wheel with spring loaded throttle adjustable to low speed setting. Popular with car enthusiasts.



## KRAFT

### THREE CHANNEL SYSTEM

KP-3AS #KRA88233

The KP-3AS is a top quality system featuring plug-in receiver and transmitter crystals on the 27 MHz band, and for the receiver only on the 72 MHz frequency band.



The receiver antenna plugs in, and two special short length antennas are available for use in cars, boats, and small airplanes.

The system is designed to use pencil type alkaline batteries, but can be easily converted without modification to rechargeable nickel cadmium batteries with a Kraft conversion kit. This kit contains rechargeable transmitter and receiver battery packs, charger, and a switch harness with a built-in charge receptacle. The KP-3AS system includes: transmitter, receiver, two servos, battery cases, and switch harness.

**SPORT SERIES THREE CHANNEL—more control, more fun, more value!** Perfect for boats, gliders, and simple aircraft.



KRA86300 Kraft 2 and 3 channel radio systems can be converted to full nicad battery operation. This conversion package contains transmitter and receiver nicad batteries and a battery transformer that will allow you to charge both.

### 4 AND 6 CHANNEL SYSTEMS

KP-4A #KRA88242

KP-6A #KRA88262

We believe these sets offer by far the best value in the radio control field. They are identical except for the difference in the number of channels. The 4-channel can be converted to the 5 or 6 channels when the customer desires. Contest type open gimbal sticks are featured for accuracy and smoothness in control. The miniature receiver incorporates a double tuned RF section with exclusive noise and interference rejection circuitry. For convenience, the receiver antenna plugs in. The rugged and powerful KPS-14IIA or KPS-15IIA servos are standard. Systems include a transmitter, 4 servos, receiver, rechargeable receiver and transmitter battery packs, charger, switch harness and servo tray.

\*Note: Sport Series (A-Series) systems feature a longer than normal digital time base for greater simplicity. Therefore, they are not compatible with other Kraft systems or components, but a complete line of accessories is available to Sport Series specifications.

**All systems and components covered by a full one-year limited warranty!**



The KP-6A may be special ordered on 53 mhz FM frequencies.

KRA83046	KRAFT 2A RECEIVER KPR-2A	44.95	40.45	212	KRA88227	KRAFT KP-2A 2 CH/2-15A/2 ST	155.95	108.95	212
KRA83047	KRAFT 3AS RECEIVER KPR-3A	49.95	44.95	213	KRA88228	KRAFT KP-2AW 2 CH/2-15A/WHEEL	155.95	108.95	212
KRA83048	KRAFT 4A RECEIVER KPR-4A	54.95	49.45	213	KRA88233	KRAFT KP-3AS 3 CH/2-14A/1 ST	164.95	115.95	213
KRA83052	KRAFT 6A RECEIVER KPR-6A	64.95	57.95	213	KRA88234	KRAFT KP-3AS 3 CH/2-15A/1 ST	170.95	119.95	213
KRA83054	KRAFT KPR-6A/FM RECEIVER ***	59.95	87.95	213	KRA88242	KRAFT KP-4A 4 CH/4-14A/2 ST	329.95	217.95	213
KRA86300	KRAFT 350-022 TXRX NICAD CONV	49.95	39.95	213	KRA88243	KRAFT KP-4A 4 CH/4-15A/2 ST	341.95	225.95	213
KRA88221	KRAFT KP-2AS 2 CH/2-14A/1 ST	149.95	104.95	212	KRA88261	KRAFT KP-6A 6 CH/4-15A/2 ST	371.95	244.95	213
KRA88222	KRAFT KP-2A 2 CH/2-14A/2 ST	149.95	104.95	212	KRA88262	KRAFT KP-6A 6 CH/4-14A/2 ST	359.95	237.95	213
KRA88223	KRAFT KP-2AW 2 CH/2-14A/WHEEL	149.95	104.95	212	KRA88264	KRAFT KP-6A/FM W/14A'S ***	399.95	269.95	213
KRA88226	KRAFT KP-2AS 2 CH/2-15A/1 ST	155.95	108.95	212	KRA88265	KRAFT KP-6A/FM W/15A'S ***	411.95	277.95	213



## KRAFT

### SERIES EIGHTY

For the serious modeler who demands the very best, the Kraft Series '80 systems are the only choice. They feature performance, painstaking quality and a wide variety of options. All transmitters have plug-in frequency modules which permit changing not only frequencies within the band but from band to band. This is your protection against obsolescence as systems can be easily converted to new frequencies when and if allotted by the FCC.

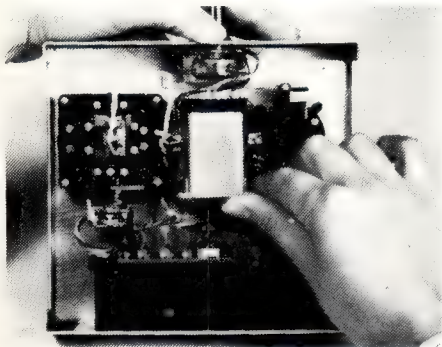


#### KP-5C KRA88252

The KP-5C and KP-5CS five channel systems establish an entirely new level in quality and performance in the medium price field.

#### KP-5CS KRA88251

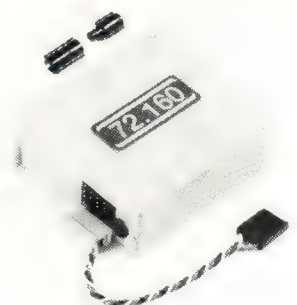
The transmitters feature an internal plug-in frequency module accessible by removing the back. The transmitter meter monitors relative R.F. output. A trainer system is optional and can be easily added at any time. The low cost KPR-5C five channel receiver does not have plug-in modules but is completely interchangeable without the need for matching to the transmitter. Pictures in the system are the KPS-15II servos which combine great power with high speed of operation. Also shown is the optional lightweight 450 MAH KB-4M battery pack. Systems include a transmitter, receiver, rechargeable receiver and transmitter battery packs, dual rate charger, switch harness, four servos, and servo trays.



← Five channel transmitter plug-in modules are easily accessible by removing the transmitter back.

#### KPR-5C #KRA83050

This is a low cost crystal filter I.F. receiver that allows complete interchangeability without retuning or matching to a specific transmitter. The RF section is double tuned to minimize interference and includes special noise rejection circuitry. It also features a plug-in antenna.



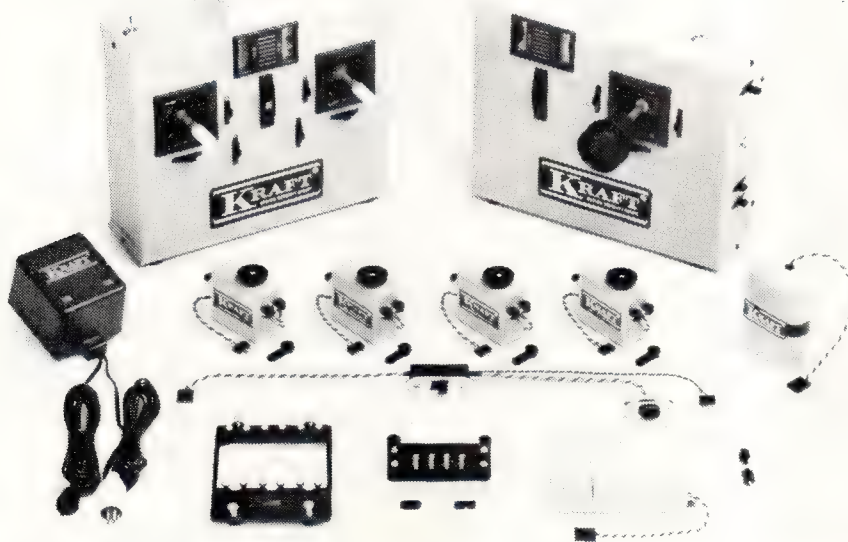
KRA83050	KRAFT 5C RECEIVER KPR-5C	54.95	49.45	214
KRA83071	KRAFT KPR-7C RECEIVER W/MODULE	59.95	87.95	215
KRA83072	KRAFT KPR-7L RECEIVER-MINI	99.95	87.95	215
KRA83075	KRAFT KPR-7F FM RECEIVER ***	99.95	87.95	214
KRA83505	KRAFT FM 7CH TRANS. MODULE ***	44.95	39.95	214
KRA83510	KRAFT TRANSMITTER MODULE	29.95	26.95	215
KRA83520	KRAFT RECEIVER MODULE	29.95	26.95	215

KRA88251	KRAFT KP-5CS RADIO 5 CH, 1 ST	424.95	318.95	214
KRA88252	KRAFT KP-5C RADIO 5 CH, 2 ST	414.95	309.95	214
KRA88271	KRAFT KP-7CS RADIO 7 CH, 1 ST	559.95	416.95	215
KRA88272	KRAFT KP-7C RADIO 7 CH, 2 ST	549.95	409.95	215
KRA88274	KRAFT KP-7C/FM ***	564.95	422.95	215
KRA88275	KRAFT KP-7CS/FM ***	574.95	429.95	215
KRA88371	KRAFT SIGNATURE SERIES-1 STICK	999.95	899.95	215
KRA88372	KRAFT SIGNATURE SERIES-2 STICK	899.95	814.95	215



## KRAFT

ALL KRAFT RADIO CONTROL SYSTEMS AND COMPONENTS CARRY A FULL ONE-YEAR LIMITED WARRANTY.



### KP-7C #KRA88272

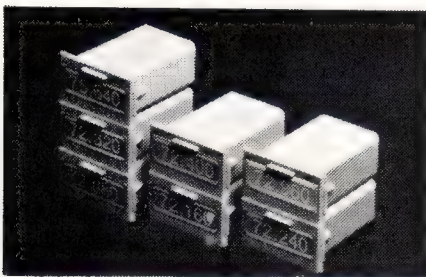
For competition or sport flying, the KP-7C and KP-7CS seven channel systems are loaded with features and extra controls to suit the requirements of the most complex model. The systems feature external plug-in frequency modules in both transmitter and the standard receiver.

Three function dual meters in the transmitter indicate R.F. output, transmitter battery voltage, and via a jumper cable, receiver battery voltage. For greater accuracy and long life, transmitter control pots are expensive precision instrument type. A trainer system is standard. The antenna disconnects and retracts into the transmitter case.

Popular KPS-14II servos and KB-4E battery pack are pictured with this system. Because of its small size and rugged gear train, the KPS-14II is an ideal all around servo. Systems include a transmitter, receiver, rechargeable receiver and transmitter battery packs, charger, switch harness, four servos and servo trays.

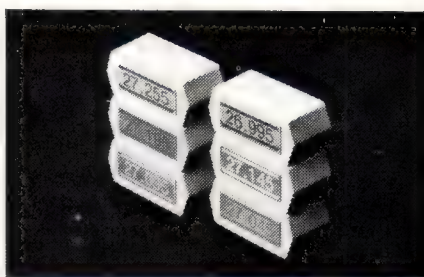
### SIGNATURE SERIES

Kraft's custom built Signature Series R/C system is available by special order.



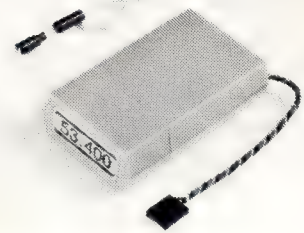
### TRANSMITTER R.F. MODULE #KRA83510

All Transmitters for Series '80 systems have plug-in R.F. modules for easy frequency changing. Replacement modules are available on all standard frequencies (see price listing section).



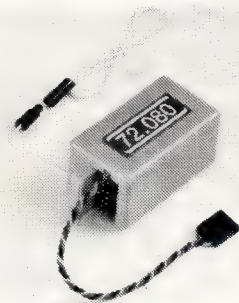
### RECEIVER R.F. MODULE #KRA83520

Note: Only the 7-channel KPR-7C receiver features the plug-in R.F. modules. You may purchase as many module sets as desired for greater frequency flexibility.



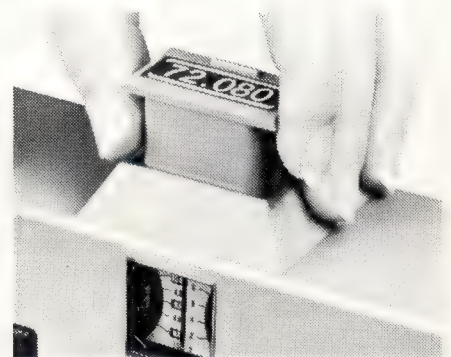
### KPR-7C #KRA83071 (with module)

This is the standard 7 channel receiver with a plug-in RF section for instant conversion to any available frequency. It contains two 4-pole ceramic IF filters that allow complete interchangeability, a double tuned RF section that minimizes interference, special noise rejection circuitry, and a plug-in antenna.



### KPR-7L (Mini) #KRA83072

This subminiature 7-channel receiver is identical in circuitry to the KPR-7C but the elimination of the plug-in RF module and use of special components results in a very small size and light weight; only 1.3 oz.!



All Series '80 systems are available on any 27 or 72 MHz frequency. (53 MHz by special order only).

For a free catalog describing the entire Kraft line, write:  
Kraft Systems, Inc. Dept. T  
P.O. Box 1268  
Vista, California

Kraft 7 channel radios may be special ordered on 53 mhz FM frequencies.



### COMPONENTS AND SYSTEM ACCESSORIES

KPS-18

KPS-12

KPS-14II

KPS-15II

KPS-11

KPS-16



#### SERVO

Kraft servos have long set the industry's standard. They provide full throw, instant response, great accuracy, and high power. All have their reference element directly coupled to the output drive shaft to eliminate the mechanical centering error characteristic of reference elements gear driven from the servo output.

A bridge output type servo amplifier is used which means that the servo can operate even though one battery cell may be dead or shorted. Special servos with 180° rotation are available to provide a locking action to eliminate servo gear loading for applications such as retractable landing gears.

**KRA81110 KRAFT KPS-11** Servo combines the versatility of both rotary and dual linear rack outputs with moderate size.

**KRA81120 KRAFT KPS-12** is a miniature servo with good power and speed despite its small size. It is recommended for moderate duty applications.

**KRA81140 KRAFT KPS-14II** is a general purpose miniature servo with ruggedness to withstand even unreasonable abuse.

**KRA81150 KRAFT KPS-15II** is very popular because of its exceptionally rugged construction.

**KRA814160 KRAFT KPS-16** has extra gearing for great power but slower speed. 180° rotation is standard.

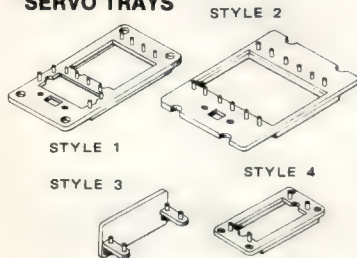
**KRA81180 KRAFT KPS-18** is the world's smallest lightest digital proportional servo. It features exceptional efficiency and performance comparable to standard Kraft servos. It really must be seen to be believed.

**KRA81200 KRAFT KPS-20** Design for boat and car applications, this servo is water resistant and features a ball bearing output.

**KRA81206 KRAFT KPS-20H** utilizes a lower resistance motor for greater power but slower speed. Water resistant, ball bearing output and standard 180° rotation.

\*See price listing for servos available for the Sport Series line (A code sets) and additional servos available with 180° rotation. **OFFSET ARM**

#### SERVO TRAYS



SERVO TRAY PART NUMBERS

SERVO	STYLE 1	STYLE 2	STYLE 3	STYLE 4
KPS-9		200-022	200-021	
KPS-10	200-018	200-019	200-017	
KPS-11				
KPS-11A	200-041	200-042	200-040	
KPS-12	200-045	200-046	200-044	
KPS-14				
KPS-14II	200-089	200-088	200-090	200-101
KPS-15				
KPS-15II	200-093	200-092	200-094	200-102
KPS-15H				
KPS-15HII				
KPS-16	200-093	200-092	200-094	200-102

#### SERVO ACCESSORIES

All necessary mounting hardware, grommets, and output arms for the servo.

**KRA80125 KRAFT 200-125** Accessories for the KPS-14II servo.

**KRA80126 KRAFT 200-126** Accessories for the KPS-15II servo.

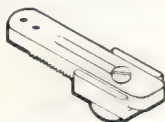
#### SERVO TRAY SWITCH ACTUATOR



**KRA82120 KRAFT 200-120** This switch actuator eliminates cutting slots or drilling holes to mount switch. Wire link operates slide.

**KRA20129 KRAFT 200-129** Offset Arm allows up to 180° operation. Useful in mechanical landing gear hook-up applications. Recommended for KPS-15II and KPS-15HII servos. Can also be used with KPS-14II servo.

#### ADJUSTABLE OUTPUT ARM



**KRA20141 KRAFT 200-141** Output arm length adjusts for precise control travel. Maximum adjustment range of .55". For KPS-14II and KPS-15II servos.

#### LONG ARM



**KRA80162 KRAFT 200-162** This extra long output arm (1.24" in length) is for use with KPS-14II and KPS-15II servos.

#### LARGE WHEEL



**KRA80168 KRAFT 200-168** This extra large output wheel (1.9" in diameter) is for use with KPS-14II and KPS-15II servos.

#### REMOVEABLE RECEIVER ANTENNAS

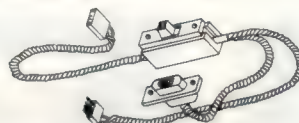


**KRA83183 KRAFT 200-183** Standard 32" antenna.

**KRA83184 KRAFT 200-184** This 18" antenna is intended for small aircraft and gliders. Base loading of this antenna results in little loss of range.

**KRA83185 KRAFT 200-185** 12" whip antenna with mounting hardware for waterproof installation in a boat deck or car body.

#### SWITCH HARNESES



**KRA83021 KRAFT 200-121** For Series Seventy-Five through present series. Includes charge receptacle.

**KRA83015 KRAFT 200-154** Miniature switch harness for use with Series Seventy-Five 7 channel receiver; also with all 1976 Bicentennial through present series receivers. Includes charging receptacle.

**KRA83014 KRAFT 200-149** For Sport Series KP-4A and KP-6A systems. Includes charging receptacle.

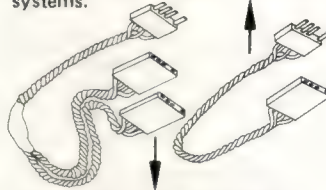
**KRA83029 KRAFT 200-029** For Series Seventy through Series Seventy-Four and all Sport 5 Series receivers. Includes charging receptacle.

#### AILERON EXTENSIONS

Six inch aileron extension cables connect servo and receiver at extended distances.

**KRA83035 KRAFT 200-150** For use with Sport Series "A" line systems.

**KRA83036 KRAFT 200-036** For use with Series Eighty and prior systems.



#### SERVO "Y" CONNECTOR

**KRA83037 KRAFT 200-037** "Y" connector permits plugging two servos into the same receiver channel for simultaneous operation.

#### MASTER TRAINER SWITCH



**KRA83004 KRAFT 350-004** This switch is for use on KPT-5C transmitters only, for conversion to master/trainer capability.

#### MASTER TRAINER CORD

**KRA83030 KRAFT 200-030** This cord is necessary for connection between any two Kraft master/trainer equipped transmitters.



## KRAFT

KB-4F



KB-4E



KB-4S



KB-4M



KB-4L



### BATTERY PACKS

All Kraft ni-cad battery packs are of the fast charge type and specifically designed to withstand high vibration and shock.

**KRA83230 KRAFT KB-4F** 1000 MAH battery pack is for special applications such as long duration gliders and complex stunt and scale aircraft.

**KRA83220 KRAFT KB-4E** 550 MAH battery pack has ample capacity for all general applications.

**KRA83235 KRAFT KB-4S** 450 MAH battery pack is intended for use where light weight and small size are important.

**KRA83240 KRAFT KB-4M** 450 MAH battery pack differs from the KB-4S in configuration only. These packs are not recommended for

use with more than 5 servos or multiple KPS-15HII (high powered) servos.

**KRA83245 KRAFT KB-4L** 225 MAH battery pack is specifically designed for use with KPS-18 servos and is not recommended for use with more than two standard servos. See order listing for stock numbers of battery packs available for the Sport Series "A" line.

**KRA83250 KRAFT KB-8D** optional ni-cad battery for use with Tower Hobbies 3 channel system

### BATTERY CHARGERS



Transmitter and receiver battery packs may be charged independently or simultaneously using either the standard **KBC-D** charger or the **KBC-A** (auto) charger.

**KRA83125 KRAFT KBC-D** charger is wall mounted with isolated transformer. Switch selected high and low charge rates.

**KRA83110 KRAFT KBC-A** charger operates from a 12 volt automobile cigarette lighter and is regulated for constant current output regardless of variation in the automobile's battery voltage. A 10' cord is included.

### BATTERY TRANSFORMER

**KRA83130 KRAFT** Wall plug-in transformer facilitates charging transmitter and receiver batteries. Charge components and charge indicator are located in the transmitter. For use with Sport Series KP-4A, KP-6A, (and 2A and 3A systems when converted to ni-cad operation.)

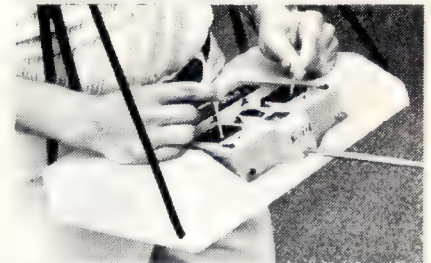
### LONG STICKS



**KRA20145 KRAFT 200-145** These sticks are designed to increase accuracy when used in conjunction with a transmitter tray. For use on Kraft KPT-7Z, KPT-7C, KPT-5C, KPT-3C, and Sport Series KPT-2AS, KPT-4A, and KPT-6A transmitters.

**KRA20146 ADJUSTABLE STICKS** Same as above with adjustable length.

### TRANSMITTER TRAY



**KRA20142 KRAFT 200-142** This tray is of the type used for many years by top European fliers. It provides greater smoothness and control accuracy when used with long sticks (P/N 200-145). Vacuum formed rugged Royalite® plastic.

KRA20129	KRAFT	200-129	OFFSET ARMS	1.19	1.15	216	KRA82093	KRAFT	200-093	15' TRAY-2X1 3	3.19	3.00	216
KRA20141	KRAFT	200-141	ACJ OUTPUT ARM	1.49	1.40	216	KRA82094	KRAFT	200-094	15' TRAY-SIDE 1	1.69	1.55	216
KRA20142	KRAFT	200-142	TRANSMITTER TRAY	19.95	17.95	341	KRA82101	KRAFT	200-101	14 TRAY-VERT. 1	1.69	1.55	216
KRA20145	KRAFT	200-145	LCNG STICKS 2	5.98	5.40	217	KRA82102	KRAFT	200-102	15 TRAY-VERT. 1	1.69	1.55	216
KRA20146	KRAFT	200-122	ACJ. STICKS 2	5.98	5.40	217	KRA82120	KRAFT	200-120	TRAY SW ACTUATOR	1.29	1.25	216
KRA80125	KRAFT	200-125	1411 ACCESS PKG	1.98	1.90	216	KRA83004	KRAFT	350-004	TRAINER SWITCH	12.95	12.25	216
KRA80126	KRAFT	200-126	1511 ACCESS PKG	1.98	1.90	216	KRA83013	KRAFT	200-177	SW HARNESS-2 CH.	7.95	7.25	217
KRA80162	KRAFT	200-162	LONG ARM-1461511	.79	.75	216	KRA83014	KRAFT	200-149	SW HARNESS-4A6A	7.95	7.25	216
KRA80168	KRAFT	200-168	LG WHEEL-1461511	.79	.75	216	KRA83015	KRAFT	200-154	MINI SW HARNESS	7.95	7.25	216
KRA81110	KRAFT	SERV KPS-11		49.95	38.50	216	KRA83021	KRAFT	200-121	SW HRNSS 75 E UP	7.95	7.25	216
KRA81120	KRAFT	SERV KPS-12		44.95	34.95	216	KRA83029	KRAFT	200-029	SW HRNSS 72-74	7.95	7.25	216
KRA81140	KRAFT	SERV KPS-1411		44.95	34.95	216	KRA83030	KRAFT	200-030	TRAINER CORD	8.50	7.65	216
KRA81142	KRAFT	SERV KPS-14 180 DEGREE		44.95	34.95	216	KRA83031	KRAFT	200-198	A1L EXT. 24 INCH	3.75	3.45	217
KRA81145	KRAFT	SERV KPS-1411A A SETS		39.95	29.95	216	KRA83032	KRAFT	200-199	A1L EXT. 36 INCH	3.75	3.45	217
KRA81150	KRAFT	SERV KPS-1511		44.95	34.95	216	KRA83033	KRAFT	200-200	A1L EXT. 48 INCH	3.75	3.45	217
KRA81152	KRAFT	SERV KPS-15 180 DEGREE		44.95	34.95	216	KRA83034	KRAFT	200-178	A1L EXT. 12 INCH	3.50	3.25	217
KRA81155	KRAFT	SERV KPS-1511A A SETS		42.95	33.25	216	KRA83035	KRAFT	200-150	A1L EXT-A SERIES	3.50	3.25	216
KRA81156	KRAFT	SERV KPS-1511A 180 DEG.		42.95	33.25	216	KRA83036	KRAFT	200-036	A1L EXT. 6 INCH	3.50	3.25	216
KRA81168	KRAFT	SERV KPS-16 180 DEGREE		49.95	38.50	216	KRA83037	KRAFT	200-037	C Y-HARNESS	6.50	5.85	216
KRA81180	KRAFT	SERV KPS-18 MINI		59.95	47.95	216	KRA83038	KRAFT	200-196	C Y-HARNESS W/CHOKE	8.95	7.95	217
KRA81185	KRAFT	SERV KPS-18A MINI		59.95	44.95	216	KRA83039	KRAFT	200-188	A Y-HARNESS	8.95	7.95	217
KRA81200	KRAFT	SERV KPS-20		49.95	39.95	216	KRA83040	KRAFT	200-201	A Y-HARNESS W/CHOKE	8.95	7.95	216
KRA81201	KRAFT	SERV KPS-20H		54.95	45.95	216	KRA83110	KRAFT	BATT CHARGER KBC-A AUTO	19.95	17.95	217	
KRA81202	KRAFT	SERV KPS-20A		49.95	39.95	216	KRA83125	KRAFT	DUAL RATE BAT CHGR KBC-D	14.95	13.95	217	
KRA81203	KRAFT	SERV KPS-20HA		54.95	43.95	216	KRA83130	KRAFT	WALL TRANSFORMER A SETS	9.95	8.95	217	
KRA81205	KRAFT	SERV KPS-20 180 DEG.		49.95	39.95	216	KRA83183	KRAFT	200-183	32IN STD ANTENNA	1.49	1.40	216
KRA81206	KRAFT	SERV KPS-20H 180 DEG		54.95	45.95	216	KRA83184	KRAFT	200-184	18IN SW. ANTENNA	2.49	2.35	216
KRA82040	KRAFT	200-040	11 TRAY-SICE 1	1.69	1.55	216	KRA83185	KRAFT	200-185	12IN WHIP ANTENNA	3.95	3.65	216
KRA82041	KRAFT	200-041	11 TRAY-2X1 3	3.19	3.00	216	KRA83220	KRAFT	BAT PK KB-4E 550 MA STD.	19.95	17.95	217	
KRA82042	KRAFT	200-042	11 TRAY-3 ACROSS	3.19	3.00	216	KRA83225	KRAFT	BAT PK KB-4EA 550 MA STD	19.95	17.95	217	
KRA82044	KRAFT	200-044	12 TRAY-SIDE 1	1.69	1.55	216	KRA83230	KRAFT	BAT PK KB-4F 1000 MA	34.95	31.45	217	
KRA82045	KRAFT	200-045	12 TRAY-2X1 3	3.19	3.00	216	KRA83235	KRAFT	BAT PK KB-4S 450 MA SQ.	19.95	17.95	217	
KRA82046	KRAFT	200-046	12 TRAY-3 ACROSS	3.19	3.00	216	KRA83236	KRAFT	BAT PK KB-4SA 450 MA SQ.	19.95	17.95	217	
KRA82088	KRAFT	200-088	14 TRAY-3 ACROSS	3.19	3.00	216	KRA83240	KRAFT	BAT PK KB-4M 450 MA OBLG	19.95	17.95	217	
KRA82089	KRAFT	200-089	14 TRAY-2X1 3	3.19	3.00	216	KRA83241	KRAFT	BAT PK KB-4MA 450MA OBLG	19.95	17.95	217	
KRA82090	KRAFT	200-090	14 TRAY-SIDE 1	1.69	1.55	216	KRA83245	KRAFT	BAT PK KB-4L 225MA MINI	19.95	17.95	217	
KRA82092	KRAFT	200-092	15 TRAY-3 ACROSS	3.19	3.00	216	KRA83246	KRAFT	BAT PK KB-4LA 225MA MINI	19.95	17.95	217	
							KRA83250	KRAFT	BAT PK KB-8C NI-CAD OPT.	29.95	22.95	217	



## MRC

### R/C GUIDANCE SYSTEMS...TRUE, COMPETITIVE PRICING IN A BETTER ENGINEERED SYSTEM

Now you can buy the better systems for the price of the others. MRC has tested, tested, tested to come up with a radio system with proven range, durability, popularity and quality. . . and now you can buy them at dollar-for-dollar, system-for-system competitive pricing.

**VERSATILITY AND CONVERTIBILITY.** It is possible to convert the Guidance 2000 into a three or four channel system at a nominal cost. Likewise, the factory will make the 3 channel into a four. Both the transmitter and receiver were designed for this adaptability.

#### Fantastic Single Stick Pricing



See page 220  
for MRC prices.

#### R/C Guidance 2000

- Two channel open gimbal
- Two stick operation with trim controls for each stick
- Standard dry cell operation
- Two servo trays standard



#### R/C Guidance 2100 Two Channel Single Stick for Sailplanes, Simple R/C Planes

- Two channels, separate trims for each channel
- Battery meter (not LED) for accuracy
- Gold plated mil spec connectors
- Conversion to nickel cadmium batteries is possible.

### NEW...THE BEST THERE IS!

A Precision Machined, Finely Honed Instrument  
For The Dedicated Flier.

The look and feel of superb craftsmanship.  
Solid ... Dependable ... Lasting!

- ☐ Elite, brushed aluminum front transmitter
- ☐ 22 click stop trims for precise set up
- ☐ Precision machined, all metal open gimbal sticks...probably among the best ever made.
- ☐ Large easy to read battery meter
- ☐ Sealed conductive plastic pots
- ☐ Switch cover prevents accidental turn on
- ☐ Slim receiver for ease of installation
- ☐ Shielded coils for ultimate interference rejection
- ☐ Conversion to 6 channels available

MRC's 805  
Five Channel for the "Professional"  
MRC Engineering  
MRC Quality to the Highest  
Degree





## MRC

### TRANSMITTERS

- Two-stick operation with trim controls for each stick • Standard dry cell operation or nickel cadmium battery operation • Transmitter size is human engineered for large and small hands • Safety battery meter... no-hard-to-see LED's • Self-contained, collapsible antenna • Sophisticated easy open gimbal and semi-open gimbal sticks • Sealed potentiometer on stick assemblies, keep them free from dirt and grime

### RECEIVERS

- Double tuned front end for excellent stability and selectivity • Leadout wires for ease of installation ... not many competitive two, three, or four channels have that • C-Mos integrated circuit decoder for low current drain and stability

### ADDED FEATURES

- Every set tested on range not once but twice • Additional bench test assures problem free reliability...no headache for you • 1 year limited warranty • Supported by network of nation wide service stations • Choice of servos • Servo trays and frequency flags included with every R/C System • Compatible with all 3-wire MRC systems

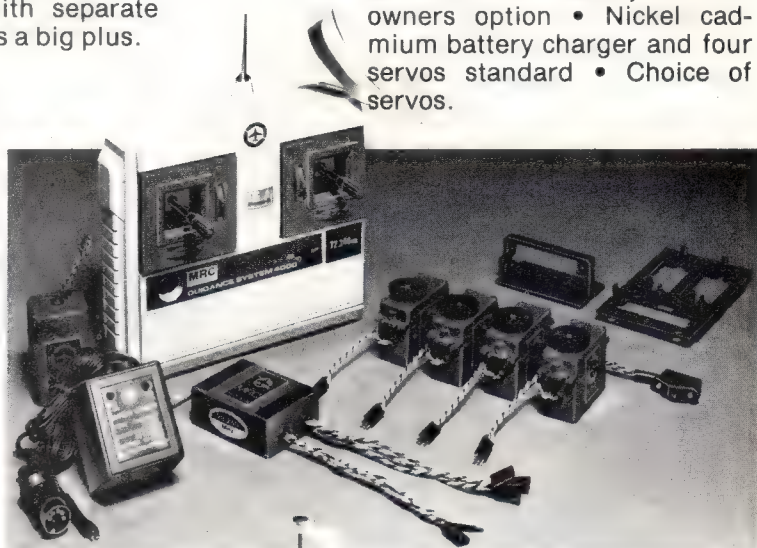
#### R/C Guidance 3000

- Three channel, two stick operation • Available in dry cell or for nickel cadmium battery operation • Self neutralizing right stick ideally used for rudder and elevator • Throttle stick with separate trim control ... it's a big plus.



#### R/C Guidance 4000

- Four channel two stick operation • Right stick for aileron and elevator • Left stick for rudder and throttle on a four channel airplane • Standard Mode II, can be ordered for Mode I control or converted later at the factory at the owners option • Nickel cadmium battery charger and four servos standard • Choice of servos.



### COMPETITION SYSTEM WITH DUAL RATE SWITCHES

#### MRC GUIDANCE 6000

Complete with six channels, 4 servos, nickel cadmium battery and charger.

Finally a radio designed for the scale flier. A full six channel, expert type radio with all the features usually only found on much more expensive systems.

- Two variable dual rate switches for aileron and elevator control
- Fifth channel retract switch ... sixth channel is fully proportional for flaps or spoilers
- Semi-open gimbal sticks
- One year warranty

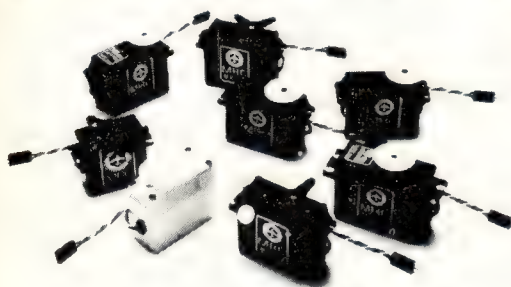
**NEW**





# RADIO CONTROL SYSTEMS

## MRC



### MRC SERVOS

**MR-12** 1 3/4" x 15/16" x 1 5/8", 32 in./oz. torque, 1.6 oz. weight.

**MR-62** Mini sized, 34 in./oz. torque, 1.7oz. weight, 1 9/16" x 7/8" x 1 1/2" size.

MRC servo trays are made from durable molded plastic and provide a custom mount for your servos. The one-touch snap in mounts make any installation easy.

For MR-10, 20, 30, 42, 70, & 80:

**ST1**-2 side by side and one cross-wise.

**ST2**-Mounts 4 servos in 2 rows of 2.

**ST3**-3 servos side by side.

**ST4**-Vertical aileron mount.

**ST5**-Horizontal aileron mount.

FOR MR-62 SERVOS:

**ST8**-Complete servo tray set pictured at right includes 5 trays and hold down clips.

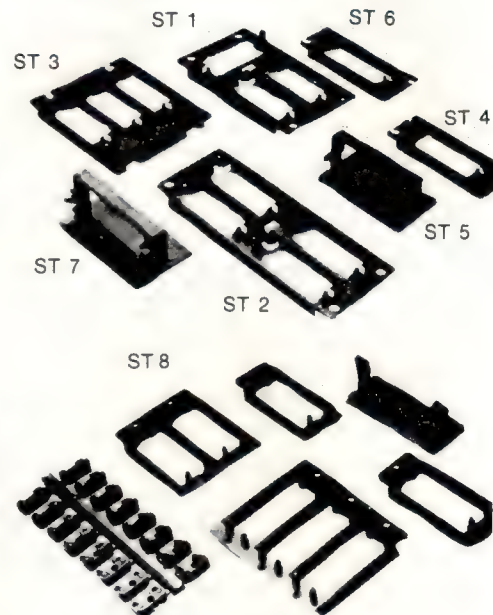
**ST9**-Single side mount (not pictured).

FOR MR-12 SERVO:

**ST10**- 2 side by side and one cross-wise (Looks like ST-1)

**ST11**- single side mount

### SERVO TRAYS



MRC81212	MRC MR-12 SERVO-STANDARD	24.95	21.50	220
MRC81232	MRC MR-32 RETRACT SERVO-180 D.	44.95	37.95	220
MRC81262	MRC MR-62 SERVO-MINI	29.95	25.95	220
MRC82010	MRC ST-1 TRAY-2X1	1.98	1.90	220
MRC82020	MRC ST-2 TRAY-2X2	1.98	1.90	220
MRC82030	MRC ST-3 TRAY-SIDE BY SIDE	1.98	1.90	220
MRC82040	MRC ST-4 TRAY-SINGLE VERTICAL	1.98	1.90	220
MRC82050	MRC ST-5 TRAY-SINGLE HORIZONTAL	1.98	1.90	220
MRC82080	MRC ST-8 TRAY PACKAGE FOR MR62	5.40	5.15	220
MRC82090	MRC ST-9 TRAY-SIDE MT FOR MR62	1.35	1.30	220
MRC82100	MRC ST-10 TRAY-2X1 FOR MR12	1.98	1.90	220
MRC82110	MRC ST-11 TRAY-SIDE MT-MR12	1.98	1.90	220
MRC83010	MRC SERVO EXTENSION CABLE	3.25	2.95	220
MRC83100	MRC RECEIVER NICAD & CHARGER	21.95	18.65	220

MRC83210	MRC TX BATT-772,774,2000,3000	24.00	20.40	220
MRC83220	MRC MINI REC BAT.-225MA SQUARE	16.00	13.95	220
MRC83230	MRC RECEIVER BAT.-500MA SQUARE	16.00	13.95	220
MRC86100	MRC DUAL BATTERY CHARGER	12.50	11.25	220
MRC86207	MRC SWITCH HARNESS W/CHARG JAK	7.95	7.55	220
MRC88321	MRC #2100 2CH/2MR12 STICK	109.98	82.95	218
MRC88322	MRC #2000 2CH/2 MR12 2 STICK	99.98	74.95	218
MRC88332	MRC #3000 3CH/2 MR12/CRY BATT.	149.95	94.95	219
MRC88333	MRC #3000 3CH/2 MR12/RX NI-CAD	169.95	104.95	219
MRC88334	MRC #3000 3CH/2 MR12/ALL NICAD	188.95	119.95	219
MRC88342	MRC #4000 4CH/4 MR12/ALL NICAD	249.95	165.95	219
MRC88352	MRC #805 5CH/4 MR42/2 STICK	389.95	219.95	218
MRC88362	MRC #6000 6CH/4 MR12/2 STICK	299.95	214.95	219

## SANWA



No. **8120**  
2 Channel Radio

### COX/SANWA® Radio Systems

Major improvements add up to outstanding value in 1980!

Precision quality, reliable operation and extensive features mark the all-new Cox/Sanwa® radio systems for 1980. Attractive new styling is designed for eye appeal and efficiency of controls. All 1980 models feature R.F. power output meters, and fully proportional controls.

#### 2-Channel

**DUAL-STICK SYSTEM** Stock No.: 8120

- ☐ New power output meter
- ☐ Most popular and economical system.
- ☐ Suitable for use with airplanes, boats and cars.
- ☐ The ideal first radio.
- ☐ New redesigned servos feature a powerful sealed motor.



## SANWA

### 3-Channel

**SINGLE-STICK SYSTEM** Stock No.: 8130

- ☐ Third channel for throttle operation on power planes or spoiler actuation on sailplanes.
- ☐ Smooth ball bearing stick gimbal with ratcheted trim levers.
- ☐ Comes complete with two micro servos, switch harness, battery box, servo tray, accessory package, and built-in recharging jack for plug-in conversion to rechargeable batteries.
- ☐ New redesigned servos feature a powerful sealed motor.

### 4-Channel

**DUAL-STICK SYSTEM** Stock No.: 8140

- ☐ All the control functions needed to duplicate the performance of a full scale aircraft.
- ☐ Voltage regulation in transmitter and receiver for maximum system stability.
- ☐ Comes complete with three, new (#803910) servos and accessory package with servo trays.

Sanwa makes a nicad conversion package for the 8130 and 8140 systems. Each includes transmitter and receiver nicad rechargeable batteries and a dual charger.



No. 8140

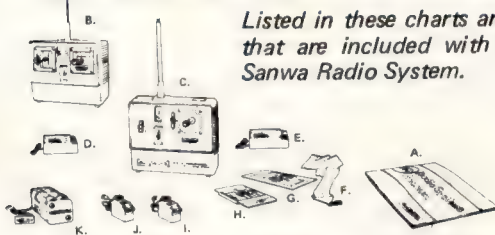
**COX/SANWA**

No. 8130

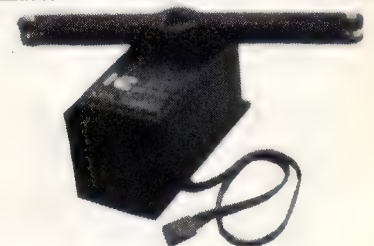
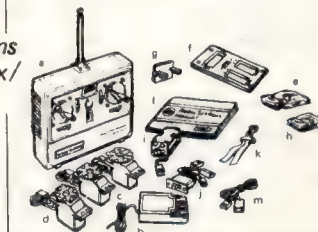
8120			8130		
I.D.	Qty.	Item	I.D.	Qty.	Item
A	1	Instruction Manual	A	1	Instruction Manual
B	1	Transmitter	C	1	Transmitter
E	1	Receiver	D	1	Receiver
J	1	Servo (Micro)	J	1	Servo (Micro)
I	1	Servo (Micro)	I	1	Servo (Micro)
K	1	Battery Case & Switch Assy.	K	1	Battery Case & Switch Assy.
F	1	Frequency Flags	F	1	Frequency Flags
H	1	Servo Tray & Screws	H	1	Servo Tray & Screws

Model 8140

a	1	Transmitter, No. 8001	k	1	Frequency Flag
b	1	Receiver, No. 8014	l	1	Instruction Book
c	2	Servos, No. 803910	m	1	Extension Cable
d	1	Servo, No. 803920			
e	1	Package Spare Servo Arms			
f	1	Two Plus One Servo Tray, with Antenna Retainers			
g	1	Aileron Servo Tray			
h	1	Package Containing Leaf Spring, Screw, and Travel Limiter			
i	1	Receiver Battery Box			
j	1	Switch Harness, No. 301570			



Listed in these charts are the items that are included with each Cox/Sanwa Radio System.



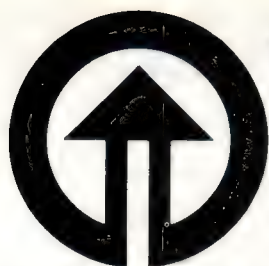
### SAIL WINCH

This new sail winch has been designed to provide sail control for the Cox Tradewinds R/C Sailboat. It is ideal for use in other 36-600 class boats and is, of course, compatible with all Cox/Sanwa radio systems. Does not require separate power supply—Just plug into your receiver and operate like a standard servo. 2.94L x 1.56W x 1.75H

Cox/Sanwa offers a complete line of accessories to complement their radio systems. Please see below.

SAN81381	SANWA	80381	SAIL WINCH- SERVO	64.90	51.95	221	SAN83005	SANWA	80005	4 CH TX BATTERY	29.95	25.95	221
SAN81391	SANWA	80391	SERVO-STC	34.90	29.95	221	SAN83006	SANWA	80006	3 CH- NICAD CONV.	59.85	45.95	221
SAN81392	SANWA	80392	SERVO-STC-REVERSE	34.90	29.95	221	SAN83007	SANWA	80007	4 CH- NICAD CONV.	59.85	45.95	221
SAN81411	SANWA	80411	SERVO-MICRO	29.95	25.95	221	SAN83100	SANWA	80100	SERVO EXT. CABLE	3.45	3.15	221
SAN81412	SANWA	80412	SERVO-MICRO-REVERSE	29.95	25.95	221	SAN83156	SANWA	80156	SERVO WHEEL-ASORTD	3.45	3.15	221
SAN82161	SANWA	80161	TRAY-MICRO-AILERON	3.45	3.15	221	SAN83157	SANWA	80157	SWITCH HARNESS	6.95	6.40	221
SAN82162	SANWA	80162	TRAY-MICRO-DUAL	3.45	3.15	221	SAN83158	SANWA	80158	MICRO SERVO WHEEL4	3.45	3.15	221
SAN82163	SANWA	80163	TRAY-MICRO-2+1	3.45	3.15	221	SAN83160	SANWA	80160	EXT. SWITCH ACT.	1.80	1.70	221
SAN82185	SANWA	80185	TRAY-STC-AILERON	3.45	3.15	221	SAN83167	SANWA	80167	SERVO WHEEL-STC.	3.45	3.15	221
SAN82187	SANWA	80187	TRAY-STC-2+1	3.45	3.15	221	SAN83179	SANWA	80179	DUAL BATT. CHARGER	19.90	17.50	221
SAN83001	SANWA	80001	REC BAT-500MA SCU.	17.95	15.75	221	SAN88524	SANWA	#8120	2CH/2SERVO/2ST-DRY	109.95	74.95	220
SAN83003	SANWA	80003	REC. BATTERY-225MA	17.95	15.75	221	SAN88533	SANWA	#8130	3CH/2SERVO/1ST-DRY	139.95	97.95	221
SAN83004	SANWA	80004	3 CH TX BATTERY	29.95	25.95	221	SAN88542	SANWA	#8140	4CH/3SERVO/2ST-DRY	199.95	139.95	221





# TOWER

P.O. BOX 778, CHAMPAIGN, ILLINOIS 61820  
PHONE (217) 398-3636

## EVERYTHING YOU WANT!

**TOWER IS DEDICATED TO OFFERING YOU THE VERY BEST VALUE AND SERVICE THAT IS POSSIBLE! IN KEEPING WITH THIS PHILOSOPHY, WE HAVE RESEARCHED THE INDUSTRY WITH PAIN-TAKING CARE TO FIND OUT EXACTLY WHAT YOU WANT IN A RADIO CONTROL SYSTEM.**

**YOU WANT QUALITY!** That's why we took our Radio Control System Formulas exclusively to Kraft Systems, Inc., of California to be manufactured to our exact specifications. Kraft quality is absolutely unparalleled by anyone else in the world. Kraft's outstanding success is attributed to their experience, high standards for materials and production, and quality control systems. Kraft means quality in every detail. For example, our rugged servos are made of tough ABS plastic which helps them live longer. Our sockets are gold plated beryllium copper, crimp connected to machine-cut and stripped wire to assure you reliable conductivity. The plastic plug body extends over the wiring insulation to prevent stress at the junction between the pin and the wire. Not only is this wiring method inherently more reliable than soldered connections, it also insures uniform quality. Tower Hobbies is the most reputable RC distributor in the business. Tower Hobbies and Kraft Systems make an unbeatable combination! Just ask any one of the thousands of modelers who own one of our fine digital proportional radio control systems!

**YOU WANT VALUE!** Tower Hobbies radios give you the quality you want at the low prices you demand — and that's value! There is nothing cheap about a Tower Hobbies radio. The design is the latest, the manufacturer is one of the finest (Tower radios are made by Kraft), the quality is unsurpassed, and the service is second to none. Tower's tremendous buying power allows us to create economics due to volume — and there are no middlemen between us and the manufacturer to artificially jack up the price. So, when you buy a Tower Hobbies radio, you're paying the lowest price possible for a top of the line product.

**YOU WANT PRECISE, TOTAL CONTROL!** All of our receivers have double tuned R.F. sections to minimize harmonic type interference and all have special noise rejection circuitry permitting their operation even under the most adverse conditions. Both Tower systems feature a dual function meter that allows you to check RF and absolute battery voltage. This allows you to monitor your flying time and to check for possible cell malfunction. This deluxe feature is usually found only on systems in the \$500.00 price range. All of our servos use an integrated circuit amplifier to produce centering and tracking accuracy better than 1/2%, virtually zero drift with changes in temperature and voltage, uniform duty cycle in both directions, smoothness, and excellent damping characteristics. The reference potentiometer element is driven directly from the output drive. This is extremely important for servo accuracy! Our control sticks give you a true, accurate feel for precision flying, and the popular closed gimbal configuration protects the transmitter from the elements for a longer life. We were thinking about your desire for precise, total control when we designed our powerful, yet light weight airborne systems! This gives you greater maneuverability, and faster climbing, acceleration, and top speed potential.

**YOU WANT PRESTIGE!** Radio Control Modelers represent an artistic breed of people who demand quality detailing, and can appreciate the most subtle esthetic appeals. Tower radios were designed with this in mind, of course. There is just something very elegant about that rich ivory color accented with black trim pieces. That's in keeping with the total quality feel of Tower radios -- that first class feeling. With Tower Hobbies radio control systems you go first class in quality, performance, and appearance. When you show up at the field with a Tower radio, everyone will know that you're a person who demands only the finest value. Your choice of a Tower radio shows you're a smart shopper!

**YOU WANT FLEXIBILITY!** Tower radios will give you the widest range of applications and the greatest performance that you could possibly ask for. The top of the line Tower 6 channel system is perfect for all radio control applications from 1/2A to pattern ships. The top of the line Tower 3 channel system is perfect for small aircraft, gliders, boats, and cars; lightweight, yet very rugged. The Tower 6 and Tower 3 components are fully compatible with the previous Tower 5 model as well as the entire line of Kraft Systems radios (except for the "A" Series). This gives you the greatest accessory and feature availability in the industry -- interchange flight packs, servos, trays, output arms, or almost anything else from the Kraft line-up of outstanding products.

**YOU WANT ASSURANCE!** Even in consideration of the meticulous care that goes into every Tower radio, you know that nothing on Earth is truly perfect. Our Tower radio control systems are warranted against defects in materials and workmanship for 180 days from the date of purchase. There are ten Tower Hobbies Service Centers across the United States authorized to perform warranty repair work. If you should need repair work after the warranty period, any one of dozens of Authorized Kraft Service Centers can perform such work for you.

**ORDER NOW!** Both systems are in stock for immediate delivery on the 72 MHz frequency of your choice. Call Toll Free right now for immediate COD delivery, or send your order in the mail along with the purchase amount plus \$3.00 for postage, handling, and insurance. If you are not 100% satisfied with your Tower radio after receiving it, then simply send it back in original condition within 10 days for a full purchase price refund.



# HOBBIES

CALL TOLL FREE:  
ALASKA AND HAWAII 800-637-8700

CONTINENTAL U.S.A. 800-637-6050  
ILLINOIS ONLY 800-252-1113



## TOWER 6 CHANNEL SYSTEM

The Tower 6 channel transmitter comes in the popular 2 stick closed gimbal configuration. Standard equipment includes a fully proportional fifth channel, toggle switch sixth channel, choice of 2, 3 or 4 standard KPS-14 or four optional KPS-15 servos, lightweight slimline high range receiver which is very convenient to install, nicad transmitter battery pack, powerful 550 MAH nicad receiver battery pack, charger, switch harness with external receptacle for charging convenience, servo trays, full servo accessories, and a dual function meter that indicates both RF and absolute battery voltage. The Tower 6 channel system has an airborne pack weight of only 11.9 ounces with 4 14's and 13.5 ounces with the 15's.

With 4 KPS-14's—\$219.95  
With 4 KPS-15's—\$229.95  
With 2 KPS-14's—\$169.95  
With 3 KPS-15's—\$194.95



## TOWER 3 CHANNEL SYSTEM

The Tower 3 channel transmitter comes in the popular single stick closed gimbal configuration. Standard equipment includes a fully proportional third channel, two KPS-14 servos, lightweight slimline high range receiver which is very convenient to install, powerful 450 MAH nicad receiver battery pack, charger, switch harness with external receptacle for charging convenience, servo accessories, and a dual function meter that indicates both RF and absolute battery voltage. The dry cell transmitter (Eveready No. 276 battery not included) can easily be converted to nicad operation by adding a Kraft KB-8D (KRA83250) nicad pack. The Tower 3 channel system has an airborne pack weight of only 7.9 ounces.

Tower 3 Channel—\$134.95

PRICES, STOCK NUMBERS, SPECIFICATIONS, AND ACCESSORIES ARE ON THE NEXT PAGE



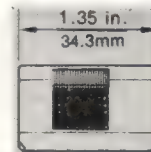
## TOWER HOBBIES

# THE STANDARD OF EXCELLENCE!

A Radio Control System is no better than its individual components - and that's where Tower Hobbies Radios really stand out! Every component is built to the highest standards to assure you excellent total system performance.

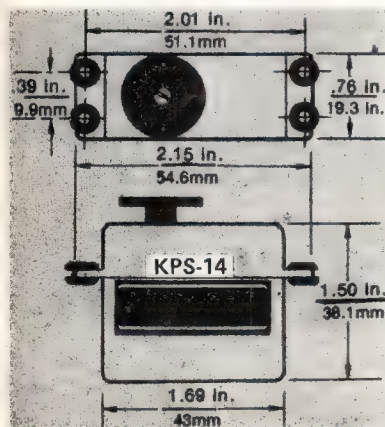
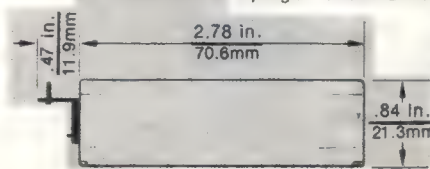


**TRANSMITTERS:** Vinyl clad aluminum gives you strength while allowing easy cleaning. 6 channel has 6 volt ni-cad pack as standard while 3 channel is set up for dry cell (Eveready 276 battery 9.6 volt-not included) or it can easily be converted to full ni-cads with the Kraft KB-8D ni-cad pack. Both feature closed gimbals and dual function meter. Both transmitters put out enough power so that as long as you can see your model you will be able to control it.

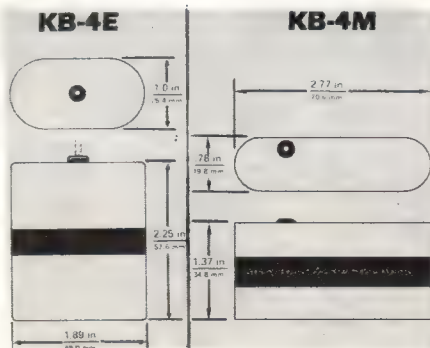
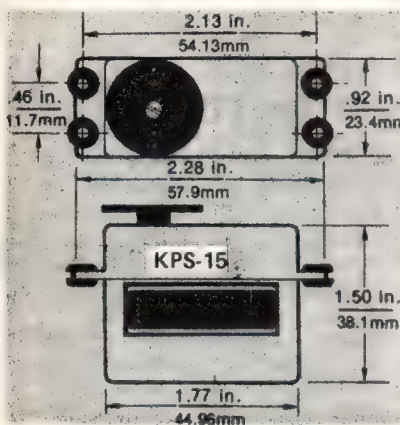


**RECEIVERS:** Both the 3 and 6 channel use the same slimline size receiver that allows easy installation in any airplane, car, or boat. Weight is 1.7 oz. (48 grams) in the 3 channel and 1.8 oz. (51 grams) in the 6 channel configuration. Both feature plug-in antenna wires to make installation easier.

Current drain is only 7 mA and both feature a double tuned R.F. section and exclusive noise and interference rejection circuitry.



**SERVOs:** Tower servos come in two sizes - KPS-14's and KPS-15's. The KPS-14's are standard on both the 3 and 6 channel and they weigh 1.4 ounces (40 grams), have 29 oz. in. torque, use a 12 ohm motor, require .5 seconds for full 100 degree rotation, and they come with both rotary arm and wheel output arms. The extra cost KPS-15 servos are optional on the 6 channel and not available on the 3. These slightly heavier and more powerful servos weigh 1.8 oz. (51 grams), have 38 oz. in. torque, use a 10 ohm motor, require .5 seconds for 100 degree rotation, and they also come with both rotary arm and wheel output arms. This servo is ideal for rugged use in 1/4 scale ships or heavy boats. Both servos feature an integrated circuit amplifier design that produces centering and tracking accuracy better than 1/2%. They are 3 wire which permits system operation even though one battery cell may be dead or shorted. Plugs are gold plated beryllium copper to assure flawless operation.



**BATTERIES:** The 6 channel comes standard with the KB-4E 550 MAH ni-cad pack, and the 3 channel comes with the KB-4M 450 MAH pack. Both are fast charge packs that allow quick charging in 6 hours. The KB-4E weighs 4.6 oz. (130 grams) and the KB-4M is 3.4 oz. (96 grams). Both packs are designed to withstand high vibration and shock.



**CHARGERS:** The 6 channel comes with a wall plug-in transformer and charge indicator located in the transmitter. The 3 channel comes with a standard charger that recharges its ni-cad receiver pack and its optional transmitter ni-cad KB-8D pack.

**ACCESSORIES:** Both systems come with extra servo output wheels, grommets, and mounting hardware. Both come with frequency flag, switch harness, antenna strain relief clips, and charger plates. The 6 channel also includes 3 servo trays and an aileron extension wire. Individual servo accessory packages and servo tray packs are available separately (below).

### TOWER AUTHORIZED SERVICE CENTERS

In the event your Tower radio should need warranty service you have any of these 10 outstanding service centers to choose from. All are also Kraft Service Centers, so you know they are good. Pick the one most convenient to you. Out of warranty work can be performed by any Kraft authorized service center.

Adams Electronics, 2713 Baldwin Brook Dr., Montgomery, AL 36111  
Tower Service West, 330 E. Orangethorpe Ave., Suite J, Placentia, CA 92670  
Tower Service Midwest, 7420 Seven Mile, Northville, MI 48167  
Kraft Service Atlanta, 20 N. Main St., Alpharetta, GA 30201  
Kraft Rocky Mountain, 212 N. Farragut, Colorado Springs, CO 80909  
New England R/C Service, 497 Central Ave., Seekonk, MA 02771  
Control Engineering, PO Box 2609, 350 Thyme St., Satellite Beach, FL 32937  
L.R. Taylor & Co., 20831 1/2 Roscoe Blvd., Canoga Park, CA 91306  
Dwight's Radio Control, Box 213, West Hill, Ontario, Canada M1E 4R5  
Kraft RC Electronics, 1685 Beckwith Dr., Hudson, OH 44236

TCW80142	TOWER SERVO ACCESSORY PKG-14II	1.98	1.75	224
TCW80152	TOWER SERVO ACCESSORY PKG-15II	1.98	1.75	224
TCW81140	TOWER KPS-14II SERVO IVORY	44.95	34.95	224
TCW81150	TOWER KPS-15II SERVO IVORY	47.95	36.95	224
TCW82314	TOWER SERVO TRAYS 3 PKG 14	6.95	5.50	224
TCW82315	TOWER SERVO TRAYS 3 PKG 15	6.95	5.50	224
TCW83000	TOWER SWITCH HARNESS 200-029	7.95	6.95	224
TCW83010	TOWER AILERON EXT IN 200-036	3.50	3.15	224
TCW83020	TOWER TX ANTENNA FOR 3 & 6 CH.	3.95	3.55	224
TCW83120	TOWER 3 CH CHARGER KBC-8 2-PIN	14.95	12.70	224
TCW83130	TOWER 6 CH CHARGER TRANSFORMER	7.95	7.25	224
TCW83220	TOWER 550MA RX NICAD BATT-6 CH	17.95	15.25	224
TCW83240	TOWER 450MA RX NICAD BATT-3 CH	17.95	15.25	224
TCW83530	TOWER HOBBIES 3 CH RECEIVER	59.95	47.95	224
TCW83560	TOWER HOBBIES 6 CH RECEIVER	69.95	55.95	224
TCW83630	TOWER HOBBIES 3 CH TRANSMITTER	69.95	55.95	224
TCW83660	TOWER HOBBIES 6 CH TRANSMITTER	114.95	89.95	224
TCW88231	TOWER HOBBIES 3 CHANNEL RADIO	210.00	134.95	223
TCW88460	TOWER 6 CHANNEL W/2 14 SERVOS	290.00	169.95	223
TCW88461	TOWER 6 CHANNEL W/3 14 SERVOS	320.00	194.95	223
TCW88462	TOWER 6 CHANNEL W/4 14 SERVOS	350.00	219.95	223
TCW88463	TOWER 6 CHANNEL W/4 15 SERVOS	370.00	229.95	223

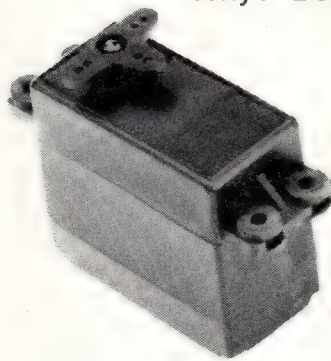
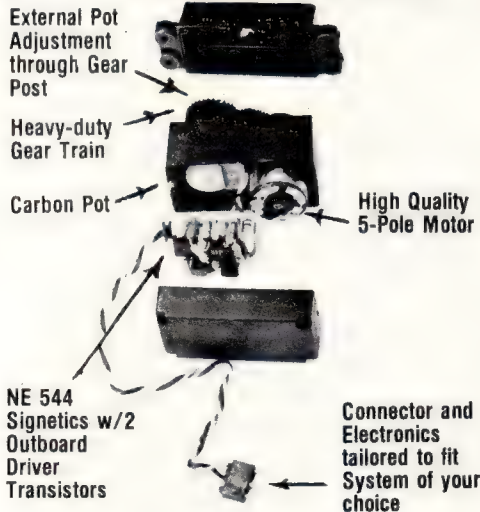


# ROYAL PRODUCTS

## ROYAL TITAN

**WE CONTAINED THE PRICE . . .  
NOT THE QUALITY!**

### AN INSIDE LOOK AT QUALITY



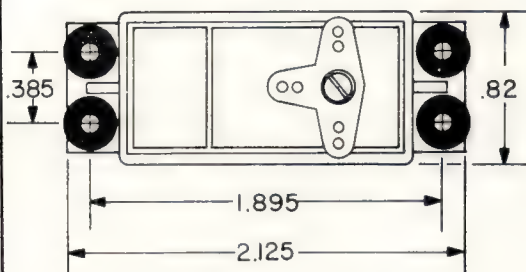
If price were always a reflection of quality, the new Titan might be grounds for suspect, especially since competitive products cost twice as much. The truth is, however, that price and quality do not always go hand-in-hand and that competitive servos are *not* twice as good, only twice as expensive. If you think you always get what you pay for, just look at the many ads in the model magazines. It is not uncommon to find identical products advertised at substantially different prices. Why? Because the advertiser buys better, makes less, or both. In the case of the Titan, price is a reflection of careful product planning and manufacturing efficiency. We're not saying we did it better, but we are saying that our quality can be compared to any, while our price can't.

### WARRANTY

If this product should fail, due to a manufacturing defect, within 90 days of date of purchase, Royal will replace/repair, at no charge. Proof of purchase date must be submitted with warranty work!

For other servo repair work, a flat rate of \$11.95 will be charged, regardless of servo condition. This rate will include return handling charges within the U.S.A. and a Money Order must be submitted in advance with repair. Royal reserves the right to repair or replace the product, as conditions warrant.

For repair work that requires return mailing outside of the U.S.A. include an additional \$2.00.



TITAN SHOWN ACTUAL SIZE

### SPECIFICATIONS:

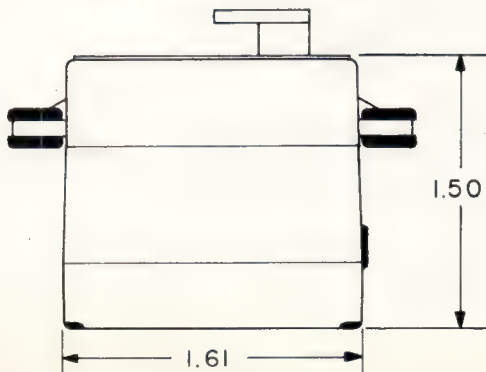
**Weight:** 1.4 ounces  
**Output Torque:** 39.4 oz.-in.  
(2.8 kg.-cm.)  
**Current Drain:** 10MA or less

**Transit Time:** .6 sec.  
**Available Outlets:** Rotary wheel,  
straight long arm, "T" arm  
**Pot:** Carbon type  
**I.C. Chip:** Signetic

### What Systems Will The Servos Fit?

Servo No.	Will Fit:
RP-1KA	Kraft Sport
RP-1K	Kraft Deluxe/Royal/Tower
RP-1F	Futaba
RP-1S	Cox Sanwa
RP-1M	MRC

RLY81105	TITAN SERVO RPIKA KRAFT SPORT	19.95	19.50	225
RCY81110	TITAN SERVO RPIK TOWER, KRA, RCY	19.95	19.50	225
RCY81115	TITAN SERVO RPIF FUTABA	19.95	19.50	225
RCY81120	TITAN SERVO RPI5 SANWA	19.95	19.50	225
RCY81125	TITAN SERVO RPI5 MRC	19.95	19.50	225
RCY82C10	RCYAL TRAY FOR TITAN-2+1	2.95	2.85	225
RCY82C20	RCYAL TRAY FOR TITAN-VERTICAL	1.50	1.45	225
RCY82C30	RCYAL TRAY FOR TITAN-HORIZONTAL	1.50	1.45	225





## Engines

In a powered aircraft, the powerplant is the heart of the aircraft. Without it, the plane is an inert lump of wood, metal, and paint. The reliability and performance of your engine is of paramount importance. Proper techniques of operation and care from the day it is fresh out of the box will insure that your engine will give you optimum performance for its entire useful life.

Modern model aircraft engines are two-stroke, reciprocating engines. Because they use a glow plug in lieu of a spark plug, points, coil and magneto are not present, but a special fuel is. Called "model airplane fuel", it contains methanol as the base, with varying amounts of nitromethane to increase the energy the fuel can provide. Lubrication is provided by oil mixed with the fuel ... commonly castor oil, but many new fuels are coming with synthetic oils that are at least as good under most operating conditions.

Typically, the R/C (throttled) engine ranges in displacement from .049 cu.in. to .91 cu.in. (.80 ccm. to 15 ccm.). This offers you a tremendous selection in aircraft size and performance so that you can get the plane you desire. There are smaller engines available (down to .010 cu.in. disp. — .16 ccm.), but these do not incorporate throttle control, and are suited only to small, single-channel models.

**The new engine:** When you get your new engine home, you should first examine it carefully for any obvious defects. Then put it down and carefully read the manufacturer's operating instructions for his recommended break-in procedures. This will help you get off on the right track.

Obtain the recommended fuel, and mount a break-in prop, if one is suggested. Otherwise, select a prop in the middle of the range of props suggested in our prop selection chart on page 355. Now you can begin your break-in of the engine. If the manufacturer has suggested a procedure for the proper way to break-in your engine, by all means, use it.

**Note:** Ringed engines do not require as long a break-in as do lapped engines (those without rings), and it can be done on the plane in the air ... run the engine at the point where it starts to break between two-cycle and four-cycle running. Monitor it in the air, and if it starts to slow down before it should run out of fuel, land and richen the mixture, as it is a little too lean. Do not make any maneuvers that put a load on the engine other than level flight loads (and aerobatics). Lapped engines do require some bench running ... at least until they can hold that breaking sound between two- and four-cycle running.

**The carburetor:** The carburetor is the device used to adjust the speed of the engine while it is running, and to provide the engine with the proper mixture of fuel and air in the process. When you examine the engine, also take a look at the carb. You will notice various controls and adjustments, the most prominent of which is the throttle arm. This is the big metal arm with the holes in it. It will rotate from about 45 to 90 degrees, with the "barrel" in the carb moving with it. This is the gross speed control. The other adjustments provide the fine-tuning of the carb.

On the side of the carb, usually opposite the throttle arm is the major adjustment ... the high speed needle-valve. This adjusts the high-speed mixture of the engine. It is this control that allows you to get peak power from the engine while allowing you to prevent an overlean condition. Since the lubricant is in the fuel, you must have a minimum amount of fuel flowing through the engine for each power setting.

Elsewhere on the carburetor is an adjustment for the idle mixture. Refer to the manufacturer's directions for its location on the carb. This adjustment allows you to adjust the mixture of the engine when you are idling it. With high-speed and idle mixtures adjusted, your engine should operate throughout all speed regimes.

A final adjustment is the idle speed screw. This screw adjusts the amount the throttle barrel is closed when the throttle is fully retarded, and is important in getting proper idle.

Some notes on idle adjustment: Make very small changes in idle mixture adjustment, for you may go past the optimum setting to the other side and find you still have a poor idle. This makes the session into the hair-

tearing variety (I know, I've had them, too). Listen to the engine while the throttle is retarded. If it suddenly speeds up and then dies, the mixture is too lean. Adjust. If the engine runs while steadily slowing down, it is too rich. Adjust for this condition. If your idle speed is too low, the engine will probably just stop suddenly without a sudden increase in RPM, or without the slow drop in RPM.

### Starting problems:

**Refuses to fire:** Weak or dead battery; bad connector, wires, or burned-out glow plug. Check the circuit, the glow plug should glow bright red. If all above checks out, is engine getting *any* fuel?

**Starts, slows down, stops:** Engine is too rich. Close the needle valve and flip prop until engine fires. It should run for a few seconds and die. Repeat a few more times until it won't fire, then re-open needle valve to re-start the engine.

**Engine starts with lots of power and then runs for a few seconds and dies:** Engine is not getting enough fuel ... mixture is too lean. Open needle valve slightly and try again. If this problem persists, then more is wrong. Check the carburetor for dirt, as it can clog the jet. If necessary, disassemble and clean it. You could also have pinholes in the fuel line, so check carefully, and replace it if necessary. The white silicon fuel line is especially susceptible to pinhole punctures. Finally make sure the fuel line is not pinched inside the tank compartment.

**Engine pops and fires, but does not start:** It's flooded! You'll have to close the needle valve, and prop it until it fires. It may run for a very short period of time. If this happens, prop it again. It should again fire and run for a short period. Continue to do this until the engine is completely dry. An overlean engine is always easier to start than a flooded one. An electric start can sure help here, but do not apply the starter and crank and crank and crank until the engine starts. Use short "blips" of the starter, as this will turn the engine over several times, and help preserve battery life, spinner life, and engine parts.

When you are sure that the engine is now cleared of excess fuel, re-open the needle valve, and proceed with the manufacturer's starting instructions. Make sure that you do not prime the engine or choke it too much! That was probably your problem in the first place! (It usually is mine!)

Cold weather can aggravate any of the above problems, especially flooding ... the engine tends to backfire, causing the prop to whack you on the finger ... in cold weather it *hurts!* (An electric starter will help your winter starting woes.)

### Engine Terms

**ABC:** As in "Supertigre G.60 ABC". This means that this engine has an aluminum piston with a brass sleeve that is chrome-plated.

**BB:** As in "Enya .45 BB". It means "ball-bearing". The crankshaft is supported by ball-bearings to reduce friction and wear.

**FAI fuel:** Fuel approved by the FAI (Federation Aeronautique Internationale) for use in certain types of contests. Usually composed of 25% oil and 75% methanol.

**FI:** Front intake.

**Lapped:** A method of fitting parts that must fit perfectly. Eliminates gaskets; or in pistons, the rings.

**Prop nut:** The nut that retains the prop.

**Prop washer:** The washer that is between the prop nut and the prop. It prevents the prop nut from damaging the prop.

**RR:** "Rear rotor". It means that the intake is behind the engine.

**RV:** Same as rear rotor.

**Schneurle:** Pronounced "shnur'l". It is a type of internal porting that puts a better mixture of air and fuel into the cylinder. These engines are higher-priced than other engines because they are harder to make.

**TV:** As in "Enya .60 BB TV". It means "Throttle valve". Same as the use of R/C in referring to an engine ... it is throttleable.

**PDP:** "Perry Directional Porting" - A patented type of engine intake port design that allows a better fuel and air mixture to enter the cylinder. This gives quite an increase in power over conventional porting, yet it's not as expensive as schneurle porting.



## CARE OF YOUR ENGINE

The way to insure that your engine will deliver optimum power throughout its useful life is to care for it properly. Engine care begins with a careful break-in. When you receive a new engine, it should be run-in according to the manufacturer's recommended procedure. Use the fuel recommended.

During normal operation, you should be careful to use a good, clean fuel, one that has not been stored too long after it has been opened. This is because the alcohol in the fuel absorbs water. Water in the fuel will not permit it to burn correctly, and you'll experience difficulty in getting smooth operation. If the fuel has been stored for any length of time in an unsealed container, get rid of it and use new fuel.

Try to avoid running your engine in dusty areas or on pavement for any length of time. The engine will just suck in all kinds of dirt and crud. This will cause your engine to wear out prematurely. An air filter is a highly recommended item—you can buy a commercial product (see the Perry air cleaner elsewhere in this catalog), or a piece of nylon stocking or pantyhose stretched over the carburetor air intake and held in place by a rubberband or piece of wire.

Keep your engine cool. Overheating can cause your engine to seize while running. This can cause your engine to virtually weld itself together. This, of course, is an excessive condition. Usually, as your engine starts to overheat, it will start to sag out. This will happen when the plane is in level flight. Usually overheating is caused by poor airflow in cowed engines, but it can also result from an overlean condition. If your engine is not running too lean, then you should suspect poor cooling airflow. If necessary, build air ducts and baffles to direct cooling air directly to the engine cylinder.

Because of alcohol's affinity for water, your engine should not be stored with fuel in it. On the last run before you put it up (even for a week), run the engine dry of fuel by pulling off the fuel line and allowing the engine to quit. After it does quit, reconnect the starting battery and prop it a few times. Usually, the engine will fire and run for a few moments before it is really dry of fuel. Do this a few more times, until it will no longer even fire. It is now quite dry of fuel.

## A NOTE ABOUT FUELS

To many people, fuels used for models are a mystery. But they are really not that difficult to understand. Model fuel usually contains about 22 - 25% oil, some nitromethane, and the rest is methanol. The Nitro content can be as high as 50 - 60%.

For most sport use, a fuel made with 5 - 10% nitromethane, 22 - 25% oil, and the rest methanol should be used. Commercially available fuels may also have some detergents and ignitors. Examples of good sport fuel are K&B 100, 500; Fox Superfuel, Duke's Fuel; and many other brands.

At this point, pour a few drops of a good quality light machine oil into the carburetor air intake, and prop the engine briskly with your finger so that the oil is distributed throughout the engine. Wrap the engine in a clean rag and it will store nicely until next weekend.

For longer storage, a heavier coating of oil throughout the engine should be used, and it should be stored in a plastic bag. Extra oil will keep out corrosion, but you'll have to flush out your engine before you try to run it, or you'll find it will be very difficult to get started the next time you try to use it.

Occasionally, you'll see a dark brown accumulation forming on the outside of the cylinder and head. If you look carefully, you'll see it inside, too. On the top of the piston and in the combustion chamber you may find a black build-up. The brown is called "varnish" and the black is carbon. Varnish also accumulates on the inside of the cylinder walls.

This accumulation of junk inside the engine will interfere with the smooth running of it, and should be periodically removed. This will entail complete disassembly of the engine.

When you have disassembled the engine, it should be cleaned out with a solution of warm soapy water and the use of steel wool. The steel wool you should use is called, "Four-ought". (also called, "0000"). This is a very fine steel wool, and it almost seems like cotton.

Scrub the engine with the steel wool and soapy water until you've cleaned all of the junk off. Now rinse the engine in water that is as hot as you can stand with your bare hands. Shake the parts to remove the water and let them air-dry. When they are dry, oil them with a good, light machine oil and reassemble the engine. It should now look about as it did when it was new.

To make sure the engine will perform as it should, you should read the offerings we have in our book section. There, you'll find books by Clarence Lee, a noted authority in the field of model engines. If you follow his advice, you should find that your engines will deliver a good, long useful life.

For 1/2A use, fuels with a nitro content of 15 - 25% are needed to insure good running. Fuels such as K&B 1000, Fox Missile Mist, and Cox "Super" are good for these small engines.

If you are racing, anything goes. Some racers use up to 60% nitro in their fuel - REAL HOT STUFF!, but you are risking your engine by using this type of fuel.

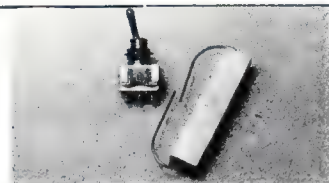
Keep in mind that the fuel you use is vital to the life of your engine. Unless otherwise specified in your engine's instructions, you should use a fuel that does not exceed about 10% in nitro content. If you do, make sure your engine is designed to handle the higher nitro fuel. Check the engine's instructions to be sure.



## ASTRO FLIGHT (AFI)



**AIRCRAFT ELECTRIC FLIGHT SYSTEMS.** These highly efficient, powerful and light weight power systems make electric flight practical. Their design is so advanced that we were granted U.S. Patent No. 3957230. The motor sizes are equivalent to a glow engine of the same displacement. That is, an Astro 15 is equivalent to a 15 Sport Glow engine. It turns the same size prop at about the same RPM. The nicad batteries provide 5 to 8 minutes of powered flight and are recharged at the field in just 15 minutes, using the rapid charger or field charger shown below. We offer these systems in sizes from .020 to .40. The Motors and batteries are available separately.



**THREE POSITION SPEED CONTROL.** This light weight three position speed control is operated from the throttle servo. It can be wired to provide off-lo-hi speeds for sport and scale models and reverse-lo-stop-hi forward, for powered gliders and boats.

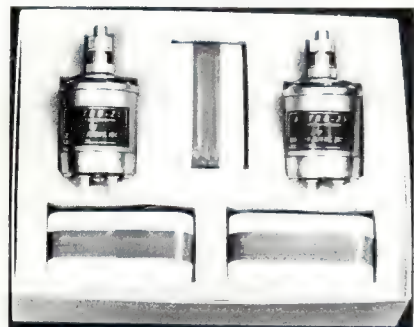
Motor	RPM	Prop.	Motor Wt.	Battery Wt.	Charge Volt	Fuse	Power Duration	Wing Area	Flying Wt.
020FF	11,000	5 1/4 x 3	55 gm	63 gm	6 Volts	8 amp	1 1/2 min	200sq in	225 gm
020RC	12,000	5 1/4 x 3	55 gm	120 gm	6 Volts	8 amp	5 min.	200-300sq in	450 gm
050	12,000	7 x 3 1/2 6 x 4	158 gm	235 gm	12 Volts	10 amp	5 min	250-350sq in	1 kg
075	14,000	7 x 4	186 gm	368 gm	18 Volts	10 amp	5 min	300-400sq in	1 kg
10	11,000	8 x 4 7 x 4 1/2	250 gm	368 gm	18 Volts	10 amp	5 min	350-600sq in	1.25 kg
15	12,000	8 x 4 8 x 5	250 gm	450 gm	24 Volts	10 amp	5 min	400-600sq in	1.5 kg
25	9,500	9 x 6	350 gm	2@409 gm	24 Volts	14 amp	8 min	600-800sq in	2.25 kg
40	11,000	10 x 5	387 gm	1000 gm	30 Volts	20 amp	5 min	700-800sq in	3.5 kg



**MARINE ELECTRIC SYSTEMS.** The marine electric systems use the same motors as our aircraft systems and include a motor mount and cooling fan to permit easy installation. Marine systems batteries are of a higher capacity to allow longer running times. Racing boats have running times of about 5 minutes at full speed and at reduced speeds half hour runs are possible. Three U.S. speed records have been set by Astro systems. The Nicad batteries are charged in fifteen minutes from the rapid charger, or field charger shown on page 279.

Motor	RPM	Prop.	Motor Wt.	Battery Wt.	Charge Volt	Fuse	Power Duration	Boat Size	Displacement
05M	9,000	05*	65 gm	205 gm	6 Volts	6 amp	15 min	DV-10	1 kg
10M	9,000	10	262 gm	409 gm	12 Volts	8 amp	15 min	DV-20	2 kg
15M	12,000	15	262 gm	2@409 gm	24 Volts	10 amp	10 min	DV-20	2.5 kg
25M	10,000	25	390 gm	2@409 gm	24 Volts	14 amp	10 min	DV-40	2.5 kg

\*Marine propeller size equivalent to glow engine size propeller.



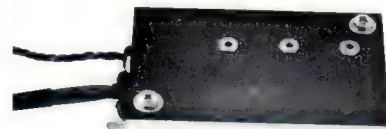
**TWIN MOTOR ELECTRIC SYSTEMS.** Twin motor systems consist of two motors and a single battery of about twice the capacity used in our single motor systems. Using a single power source insures that one motor will not run down before the other. By installing two twin systems in a single plane, four motor planes can be built. Three engine planes such as the Ford tri motor can be built by adding a third motor to a twin system and running a slightly smaller prop than in the table. No complicated throttle linkage or motor synchronization is required. One speed control is used, just advance the transmitter throttle control and GO!!

Motor	RPM	Prop.	Motor Wt.	Battery Wt.	Charge Volt	Fuse	Power Duration	Wing Area	Flying Wt.
02T	11,000	5 1/4 x 3	2@55gm	205 gm	6 Volts	8 amp	5 min	300 sq in	1 kg
05T	12,000	6 x 4 7 x 3 1/2	2@158gm	409 gm	12 Volts	10 amp	5 min	400 sq in	1.7 kg
15T	12,000	8 x 4 7 x 4 1/2	2@250gm	2@409 gm	24 Volts	10 amp	5 min	600 sq in	3 kg
25T	12,000	8 x 6	2@390gm	1000 gm	30 Volts	20 amp	5 min	700 sq in	4 kg

SEE PAGE 279 FOR ASTRO FLIGHT FIELD & RAPID CHARGERS

**NOTE:** Systems below with "W/BAT" are complete systems that include motor(s), battery(ies), and full instructions.

AF109505	AF1	ASTRC	MARINE	05	SYS	W/BATT	44.95	35.95	228
AF109510	AF1	ASTRC	MARINE	10	SYS	W/BATT	89.95	71.95	228
AF109515	AF1	ASTRC	MARINE	15	SYS	W/BATT	129.95	97.45	228
AF109805	AF1	ASTRC	05	ELEC	MOTOR ONLY		10.95	8.95	228
AF109902	AF1	ASTRC	02	ELEC	MOTOR W/BATT		32.95	26.35	220
AF109905	AF1	ASTRC	05	ELEC	MOTOR W/BATT		59.95	47.95	228
AF109910	AF1	ASTRC	10	ELEC	MOTOR W/BATT		99.95	79.95	228
AF109915	AF1	ASTRC	15	ELEC	MOTOR W/BATT		119.95	89.95	228
AF109925	AF1	ASTRC	25	ELEC	MOTOR W/BATT		149.95	112.95	228
AF109942	AF1	ASTRC	02	TWIN	MOTORS W/BAT		49.95	39.95	228
AF109944	AF1	ASTRC	05	TWIN	MOTORS W/BAT		74.95	59.95	228
AF109946	AF1	ASTRC	15	TWIN	MOTORS W/BAT		175.00	131.25	228
AF109950	AF1	ASTRC	25	TWIN	MOTORS W/BAT		210.00	157.50	228
AF110007	AF1	ELEC.	SPEED CONTROL-KRAFT				59.95	47.95	228
AF110008	AF1	ELEC.	SPEED CONTROL-FUTABA				59.95	47.95	228
AF120010	AF1	3-POSITION	SPEED CONTROL				5.95	5.65	228



**ELECTRONIC SPEED CONTROL.** This compact solid state speed control plugs into the receiver and offers full proportional speed control from off to full power. It has a 20 amp rating enough for all our systems except the Twin 25.

Available With Kraft Or Futaba Plugs



## COX

Cox produces the finest internal combustion engines in the world. Tolerances are closer (less than 20 millionths of an inch), and they run faster—almost 8 times faster than full size reciprocating aircraft engines.

### REED VALVE

The world's most popular engine for 1/2-A free flight and control line flying. Powerful, instant starting, smooth and dependable.

Cat. No. 350 .049 (.819cc) Babe Bee

Cat. No. 100 .020 (.327cc) Pee Wee

### REED VALVE

#### WITH THROTTLE

New Cox throttle-controlled reed valve engines for radio control; carrier event and fun flying. Throttle is operated by a third line of hand control flying.

Cat. No. 100-1 .020 (.327cc) Pee Wee

### QRC

An easy starting .049 reed valve engine specially set up for R/C use. Features include an oversize fuel tank with fuel pick-up tube located at center bottom. For quiet operation the engine is equipped with a patented Cox muffler and a specially ported cylinder which delivers maximum power when fully muffled.

### BLACK WIDOW

Tank with twin cross vents allows engine to run right side up or upside down. Inside and outside loops, figure eights or any combat action.

### TEE DEE

#### FRONT ROTARY VALVE

The most powerful production engine in its class. Contest performance with Cox dependability, long life and smooth running.

### MEDALLION

#### FRONT ROTARY VALVE

Ideal for general sport and R/C flying. The Medallion always turns in a perfect flight. Fast starting. Suited to both beginners and experts.

### MEDALLION

#### WITH THROTTLE

The ideal combination for R/C flying—the popular Medallion sport engine with the new Cox throttle. Throttle designed with minimum number of working parts—offers instantaneous response.

### .049 R/C BEE ENGINE

#### with throttle and muffler

Another first from the leader in 1/2 A power. A completely new engine designed for the requirements of R/C flying features a smooth proportional throttle with a quiet factory installed muffler, plus a new larger capacity tank incorporating a weighted fuel pick-up for extended inverted flight.

The R/C Bee features rear rotor induction

for higher power than our popular reed valve engines, and provides other important features. The engine can't run backwards, is not sensitive to contamination from dirty flying sites, and is easier to start and adjust.

We've even designed a new glow head which gives extra power and longer life. Added the new Cox Snap-Starter for easier starts. New die-cast crankcase as used in larger sized racing engines. All this with a throttle and muffler that doesn't significantly reduce top end power.

Catalog No. 360

CCX00C49	COX 450-1 QRC .049 W/MUFF+TANK	16.95	12.35	229
CCX01C20	CCX 160 TEE DEE .02 W/TANK	27.95	20.95	229
CCX01C49	CCX 170 TEE DEE .049 ENGINE	27.95	19.95	229
CCX01C51	CCX 200 TEE DEE .051 ENGINE	27.95	19.95	229
CCX01090	CCX 210 TEE DEE .09 ENGINE	29.95	22.45	229
CCX02049	CCX 240 MEDALLION .049 ENGINE	19.95	14.95	229
CCX02090	CCX 230 MEDALLION .09 ENGINE	24.95	18.75	229
CCX02150	CCX 220 MEDALLION .15 ENGINE	29.95	22.45	229
CCX02505	CCX 240-1 MEDALLION .049 RC	21.95	16.45	229
CCX02509	CCX 230-1 MEDALLION .09 RC	26.95	19.95	229
CCX02515	CCX 220-1 MEDALLION .15 RC	31.95	23.95	229
CCX03020	CCX 100 PEE WEE .020 W/TANK	14.95	11.95	229
CCX03025	CCX 100-1 PEE WEE .020 RC W/TK	16.95	12.70	229
CCX03051	CCX 150 BLACK WIDOW .049 W/TNK	15.50	11.65	229
CCX04049	CCX 350 BABE BEE .049 W/TANK	11.95	8.95	229
CCX04050	CCX 360 RC BEE .049 W/MUFFLER	21.95	16.45	229



Pee Wee .020 w/throttle

.049 RC Bee w/throttle & muffler

Tee Dee .020

Tee Dee .049

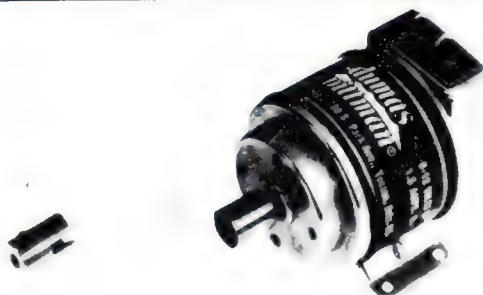
Medallion .049

Medallion .049 w/throttle

QRC .049



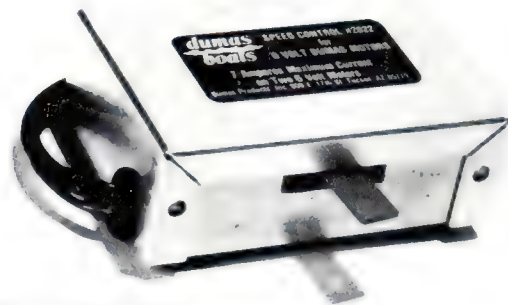
## DUMAS



**dumas  
pittman**

### BOAT MOTORS

Dumas Pittman "Boatmaster" motors are accepted as the standard of the hobby field. Well established as the highest quality model boat motors available, their power and smooth operation is truly superior. Available in both 6 volt and 12 volt DC versions, Dumas/Pittman motors are enclosed in a corrosion resistant metal housing, and are complete with universal coupling for 1/8" shaft.



### New Speed Control

Improved speed controls for The Dumas electric motors. Provides variable speed forward and reverse with "off" in the center operated by a radio controlled servo. Will control one or two motors.

#2022 for 6 volt motor.

#2023 for 12 volt motor.

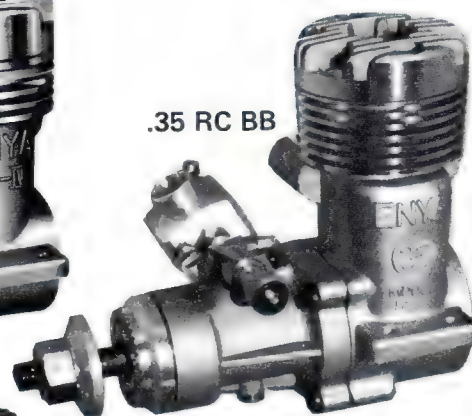
DUM15C22	DUMAS #2022 SPEED CONTROL-6V.	30.00	24.95	230
DUM15C23	DUMAS #2023 SPEED CONTROL-12V.	30.00	24.95	230
DUM09C60	DUMAS #2004 PITTMAN MOTOR 6V	27.50	21.95	230
DUM09120	DUMAS #2005 PITTMAN MOTOR 12V	27.50	21.95	230

Enya R/C engines are made in Japan by master craftsmen, and imported into this Country by M.R.C. These engines are available in sizes from .09 to .60 in regular R/C version, ball bearing, marine, and ball bearing schneurle ported versions. All of the engines listed below are R/C engines which means that they are throttle controlled by means of a throttle valve. The ball bearing versions are designated by a "BB" in the description and this means that the crankshaft is supported by ball bearings in the crankcase. This causes less friction and therefore a higher performance engine. The Marine versions come with a special water cooled head jacket for cooling, and these are regular bushing R/C engines unless otherwise noted as "BB". The .60 RC BB G-8 engine is a conventionally ported .60 that has the special Enya G-8 carburetor, for increased power. It's available as regular or marine R/C. The "X" schneurles are high performance ball bearing schneurle ported engines that come with special mufflers (except .60 RC XF). Enya mufflers are available for the .60XF and all the other non schneurle engines—see page 323. See the same page for tuned pipes with adaptors to fit the .40X, .45X, .49X, and 60X's.

## ENYA



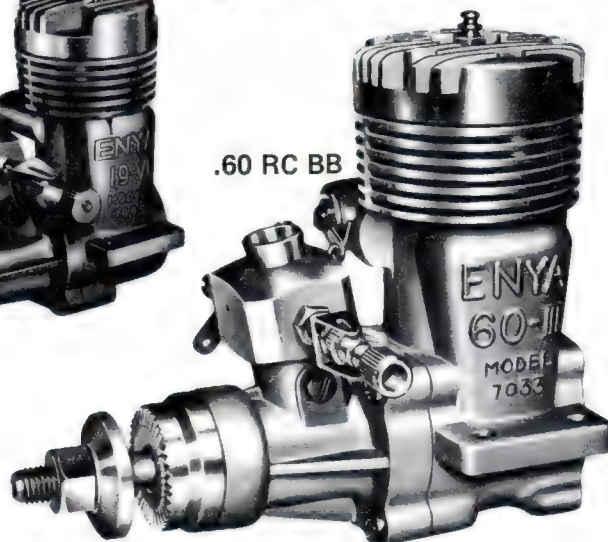
.15 RC



.35 RC BB



.19 RC BB



.60 RC BB

ENY01009	ENYA .09 RC ENGINE	37.98	26.95	231
ENY01015	ENYA .15 RC ENGINE	42.98	29.95	231
ENY01019	ENYA .19 RC ENGINE	46.98	32.95	231
ENY01029	ENYA .29 RC ENGINE	51.98	34.95	231
ENY01035	ENYA .35 RC ENGINE	54.98	36.95	231
ENY01040	ENYA .40 BB RC ENGINE	92.98	59.95	231
ENY01119	ENYA .19 BB RC ENGINE	59.98	40.50	231
ENY01129	ENYA .29 BB RC ENGINE	68.98	46.95	231
ENY01135	ENYA .35 BB RC ENGINE	71.98	48.95	231
ENY01145	ENYA .45 BB RC ENGINE	92.98	59.95	231
ENY01160	ENYA .60 BB RC ENGINE	120.98	78.95	230
ENY02009	ENYA MARINE .09 RC ENGINE	44.98	31.50	230
ENY02015	ENYA MARINE .15 RC ENGINE	48.98	33.95	230
ENY02019	ENYA MARINE .19 RC ENGINE	53.98	36.50	230
ENY02029	ENYA MARINE .29 RC ENGINE	59.98	40.50	230
ENY02035	ENYA MARINE .35 RC ENGINE	62.98	42.50	230
ENY02040	ENYA MARINE .40 BB RC ENGINE	99.98	64.95	230
ENY02045	ENYA MARINE .45 BB RC ENGINE	99.98	64.95	230
ENY02060	ENYA MARINE .60 BB RC GP	135.98	84.95	230
ENY05119	ENYA .19 RC X SCHNL W/MUFFLER	90.98	58.95	232
ENY05140	ENYA .40 RC X SCHNL W/MUFFLER	130.98	81.95	232
ENY05145	ENYA .45 RC X SCHNL W/MUFFLER	139.98	87.50	232
ENY05149	ENYA .49 RC X SCHNL W/MUFFLER	135.98	84.95	232
ENY05162	ENYA .60 RC XF II RINGFC SCHNL	159.98	89.95	232
ENY05164	ENYA .60 RC XF W/PERRY PUMP	249.98	149.95	231
ENY08160	ENYA .60 RC PP GR ENGINE	127.98	79.95	230

The .60 RC BB and .60 RC BB G-8 airplane and marine versions, have the same mounting dimensions.



# **ENYA**

## **Reliability... it's the key component in every MRC-Enya engine**

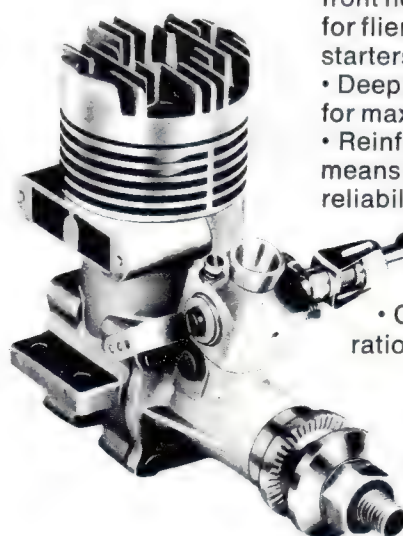
MRC-Enya's reliability is legendary. Ask any flier and you'll find that our engines are out there season-after-season, doing their job and doing it well. And that's because they're made better to last longer. For instance, the hand lapped, matched piston and cylinder assembly used in many MRC-Enya engines is just one example of why our engines run on and on and on.

### **.09 RC ... excellent economy ... excellent response**



- Easy starting • Excellent fuel economy • Hand lapped piston and cylinder • Available in control line, R/C and R/C Marine versions • Max. Horsepower: .2 (Std), .16 (TV) • Bronze Bearing Compression ratio 7.5 to 1.

### **.35 RC ... for the sport flyer**



- Wear reduction washer between drive washer and front housing ... excellent for fliers who use electric starters • Hefty crank case • Deep finned cylinder head for maximum cooling • Reinforced crankshaft means day-in and day-out reliability for the sport flier
- Max. Horsepower: .6
- Bronze bearing
- Compression ratio 7.5 to 1.

Both the Enya .29 and .35 engines have the same mounting dimensions.

### **.60 RC XF ... a Schnurle ported screamer for demanding contest flier, or any flier who competes or plans to. Power. Efficiency. Reliability.**

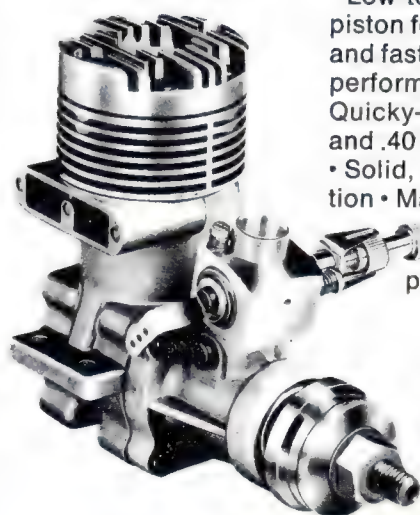


- Ball bearing, this engine comes with the famous Perry pressurized pump and carburetor system (not pictured) to provide all-out power (about 2 horsepower).



See page 230 for prices of all Enya engines.

### **.40 RC BB ... for the sport flyer and scale modeler**



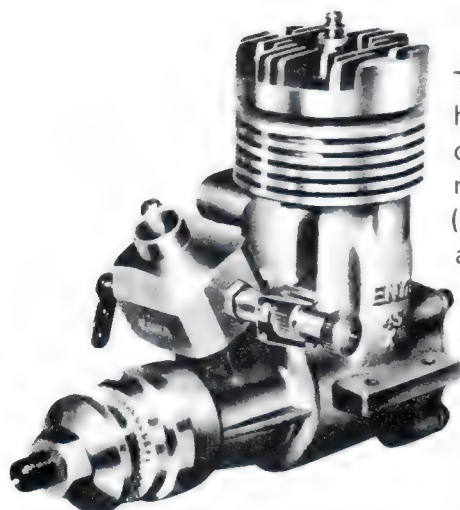
- 2 ball bearings for long life and added performance
- Low-tension dykes-ring piston for easy break-in and fast starts • Great performance for fun-flies, Quicky-500's, scale models and .40 size sport ships
- Solid, reliable construction • Max. Horsepower: 1
- Two ball bearings • Compression ratio 10 to 1.

The .40 and .45 have same mounting dimensions.



## ENYA

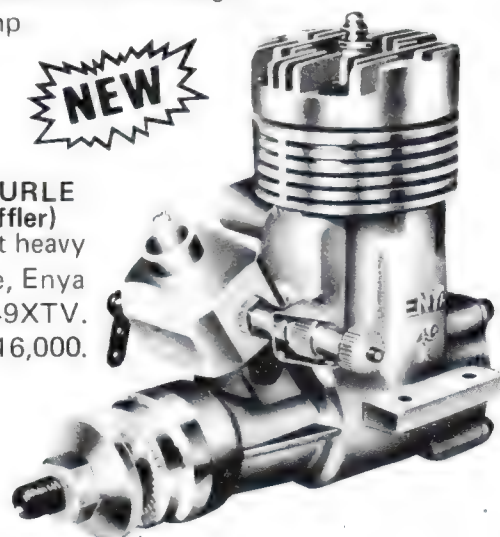
**Outstanding performance, reliability, and appearance  
... all at amazingly low prices.**



**.45 RC X SCHNEURLE (comes with muffler)**

There has never been so powerful a .45 engine. Big power, high rpm's. Hand lapped aluminum-chrome piston sleeve offers perfect matching and high power without using a ring for compression. Rated at 1.3 hp (that's big power for a .45) and 17,000 to 24,000 rpm.

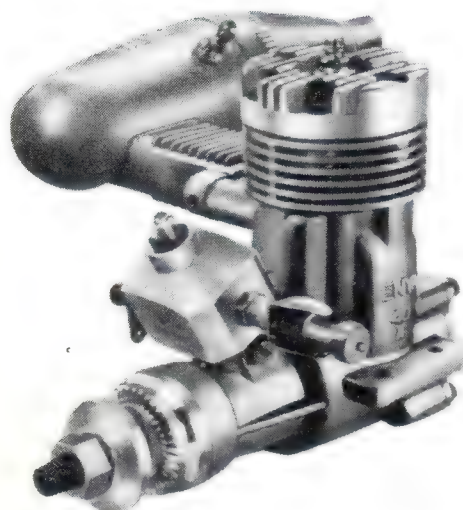
**NEW**



**.49 RC X SCHNEURLE  
(comes with muffler)**

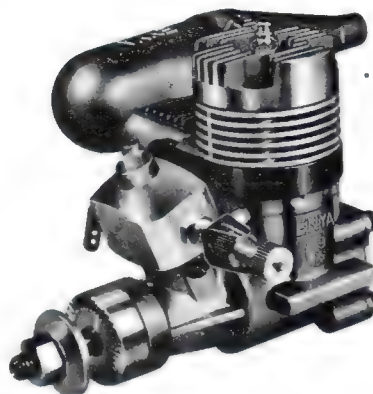
For high torque to lift heavy .40 aircraft with ease, Enya developed this big 49XTV. HP 1.3, RPM 2,500 to 16,000.

*See page 230 for  
all Enya engine prices.*

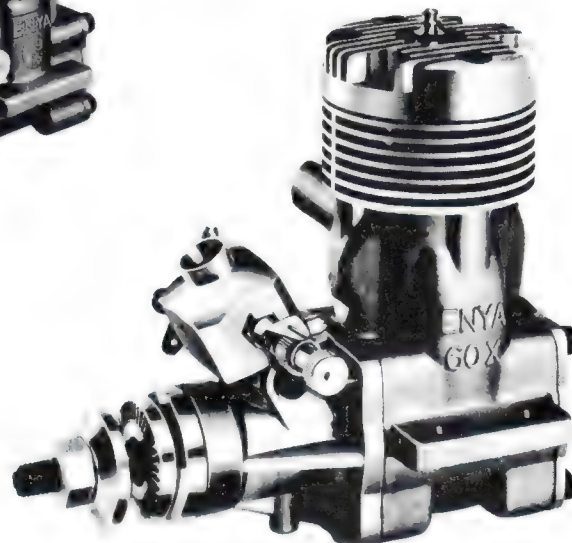


**.40 RC X SCHNEURLE (comes with muffler)**

For all-out performance and reliability at unbelievably low prices, Enya is the way to go. The X Schneurle engines on this page represent the best values available anywhere. You'll find them to be the most powerful in their class; as well as easy-starting, outstanding in appearance, and built to last.



**.19 RC X SCHNEURLE  
(comes with muffler)**



**.60 RC XF II RINGED SCHNEURLE**



## FOX

# THE FOX EAGLE II

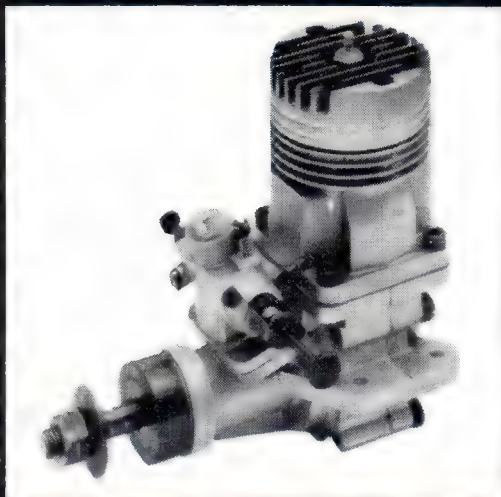
## A truly inspired design approach —

**Ball Bearing equipped**

**.60 cu. in.**

Competitive.  
Reliable Performance!

American Made  
American Serviced



**Performance: The new Fox Eagle II compares favorably with the most expensive imports!**

O.P.S., Webra, Rossi and O.S. engines: We consider these to be the world's finest .60's. And now one more, the FOX EAGLE II. It's a hot engine; we think you'll agree. American made, fast service and parts to back you up. At reasonable prices. Dealers to supply you; and you have our "Hot Line" phone if it'll help.

**Durability! Check the features:**

Crankpin: .280 dia. x .312 long  
Con Rod: Bushed on both ends  
Piston: Single Ring, hi-silicon alloy  
Cylinder: File hard, never wears out  
Bearings: Custom made for Fox Mfg. with special clearances and race radii for the best performance.

All Fox Eagle II's are equipped with the new MK X-C Carburetor, acclaimed world's finest!

The unique bolt-on cylinder head permits a superior bypass configuration. Fox Eagle II offers long life, given good fuel, clean air and reasonable mixture settings. 100 hour life is not unreasonable. That is a lot of active flying. The Eagle II is competitive!

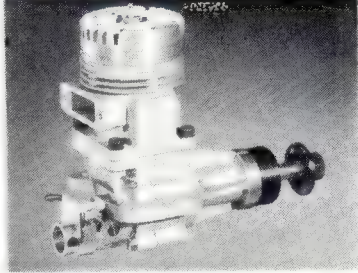
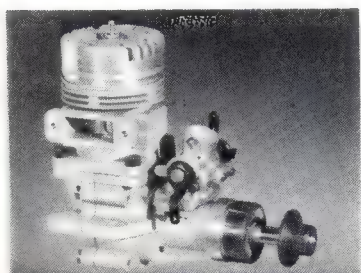
The new Fox Eagle II is truly a major advance in the art. The high power output is achieved by its more efficiently shaped bypassing and cylinder porting configuration coupled with a very massive and structurally sound design. The square cylinder bolt pattern makes it possible to order your engine with the exhaust pointing any one of four ways. Pattern flyers tell us that a rear exhaust installation in a symmetrical airplane handles better in the rolling maneuvers. In addition, the cleaner exterior enables them to pick up speed where it is needed. The massive connecting rod and large lower end (.281 dia. x .312 long pin) gives the assurance of a long life and durability. The removable head button makes it possible to tailor the combustion chamber to your particular flight conditions. The piston is made of low expansion, heat resistant high silicon aluminum and requires less clearance than many. The single high tension piston ring holds compression well at cranking speeds making hand crank starts easy, hot or cold. Modern 60 airplanes represent a lot of time and money and deserve the finest power plant you can obtain. The Fox Eagle II is such an engine.

The Fox Eagle II can also be ordered with a rear intake configuration. This too introduces several advanced concepts. The rotor disc and shaft is one piece so that the rotor disc maintains its squareness with the mating surface. The large diameter case permits a larger than average rotor disc and a larger than average intake so your engine will never run out of air. Again, the square cylinder mounting pattern makes possible turning the exhaust in line with the crank shaft which is ideal for both applications. The massive, rugged moving parts will withstand the beating that racing motors take. For speed and durability the Eagle II is the engine for you.

26300 Fox Eagle II Rear Exhaust Marine coming soon.

26200 Fox Eagle II - Side Exhaust ..

26299 Fox Eagle II - Rear Exhaust ..



See page 325 for mufflers and tuned pipes.

Fox has a complete line-up of engines from .15 to 1.2 cu. in. displacement. The .15's are Schnuerles and are available in bushing or ball bearing (BB) versions. The .19, .25, .29 and .36 are all bushing engines. The .40 and .45 are both Schnuerles and are available with bushings or ball bearings (all come with the great new MK-X carb shown below). The Eagle .60 I features ball bearings and the MK-X carb. The new, very powerful Eagle II .60's are ball bearing and schnuerle-ported, with the MK-X carb. They are available in side and rear exhaust; a marine rear exhaust version is planned. The 1.2 cu. in. twin is basically 2 Eagle II .60's combined to produce a real powerhouse. The .35 U/C and .36 BB Combat U/C are control line engines that are very popular. Just released is the .36 RX RC with a very compact can muffler. See the engine muffler section for Fox mufflers.

## ATTENTION FOX OWNERS!

**DUKE FOX PRESENTS HIS MK-X CARBURETOR**

**EXPERIENCE THE ULTIMATE IN SMOOTH THROTTLING ACTION  
WILL BOLT RIGHT ON YOUR FLANGE MOUNTED FOX 40, 45,  
EAGLE, HAWK, 78 OR TWIN**

Just Released: MK-X carb to fit the Fox .19 and .25

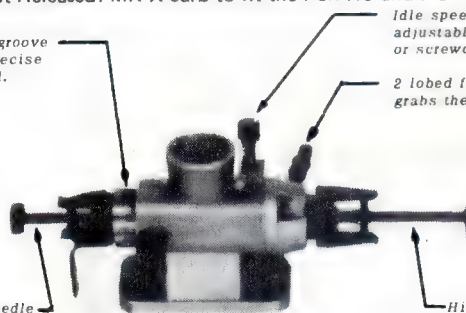
Hi-spiral cam groove gives really precise mixture control.

Idle speed adjustment adjustable by fingers or screwdriver

2 lobed fuel nipple really grabs the fuel line.

Low speed needle adjustable by fingers or screwdriver.

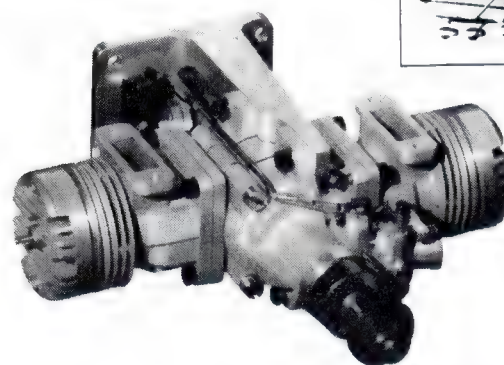
High speed needle



Now Available: Special MK-X carb for use with Fox .60's with Tuned Pipes.

## THE ULTIMATE IN RC FLYING FOX 20CC OPPOSED TWIN

2 Eagle II .60's with MK-X Carburetors



The Fox Twin is the finest two cylinder model airplane motor ever produced. Every design consideration and manufacturing care has been taken to make the Fox Twin a really practical power plant.

The two cylinder opposed simultaneous firing configuration was selected because equal and opposite piston motions cancel each other out vibration wise and produces a smoother running configuration than the alternate firing in line motor. In addition, the opposed cylinder configuration cools better and fits most scale models better.

The cylinder configuration is of the most modern and advanced schnuerle porting, featuring Fox exclusive angle side flow bypasses. The cylinder is glass hard and the pistons are made of the hardest piston alloy available. The crankshaft is of hardened steel, and extremely massive compared to any other motor you have seen. The massive crankshaft construction was necessary because the terrific power of earlier experimental cranks twisted in two for conventionally proportioned shafts. The dual carburetor makes possible adjusting each cylinder for maximum power, a failing of most earlier

twins where a single carburetor would result in one cylinder running rich and the other lean. Although the Fox Twin can turn a 17, 18 or 19 inch propeller faster than most chain saw engines of equal displacement, its true potential is achieved by letting it rev up. The result is the ability to fly your airplane in a realistic manner, using a scale type propeller, but if you are performance minded, then put on a smaller propeller and really move out. We recommend a 15-6 for average models. Each Fox Twin is factory run at full power, assuring you that when you buy this and put it in your model, you can fly. The carburetor has been adjusted and synchronized for atmospheric conditions at the factory. Unless you are at a rather high altitude, no further adjustments should be necessary.



**SPECIFICATIONS:**  
Bore: ..... .507  
Stroke: ..... .537  
H.P. (at 14,000 RPM) ..... 3 plus  
Weight: ..... 24 Gm.  
Standard accessories: Firewall type motor mount, carburetor intakelink, fuel line "Y" fitting.

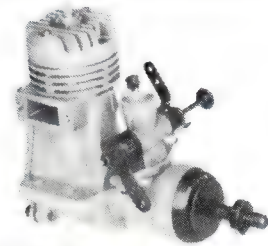


## FOX

### FOX .15 RC SCHNEURLE

Bore .....	.590	Weight .....	.6 oz.
Stroke .....	.550	RPM with 8-4 prop .....	13,000
Displacement .....	.15		

Beginners love the Fox 15 Schneurle. It cranks easy and it starts quickly. It runs well even if the carburetor adjustments are not just exactly right. Powerwise this motor is equal to any 15 Bushing on the market. The RC version is equipped with a full metered carb, just like the expensive 60's. This means that your engine will continue running at intermediate and low speed throttles, through any sort of wild maneuvers that you may be able to come up with. This engine is also available in a ball bearing version for even more power and longer life.

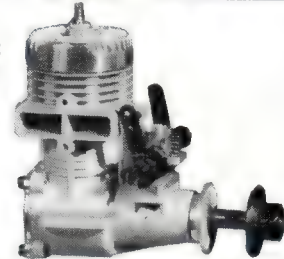


### FOX .19 RC

Bore .....	.650	Weight .....	.5 1/2 oz.
Stroke .....	.600	RPM with 8-4 prop .....	15,000
Displacement .....	.19		

The Fox 19 is truly an exceptional baffle piston motor. It is easily the most powerful of the baffle 19 motors and probably the most powerful of all bushing 19 motors. For several years this motor has dominated Class 19 racing in Great Britain. The design is simple, the parts sturdy, and for 1979 it features an improved crankcase with fore and aft mounting lugs so that the muffler can be installed quickly and simply. For 1979 the crankshaft pin diameter has been increased to .185 diameter. Also the 1979 model features an improved carburetor. The new carburetor has larger diameter threads on the barrel and steel friction clips for more reliable function.

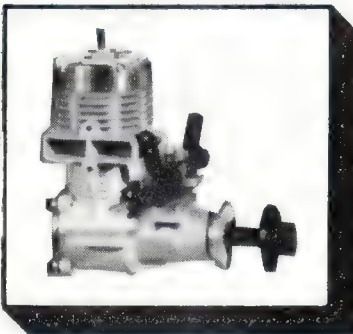
The Fox .19 RC now comes with the MK-X carb as standard equipment.



**FLASH!**  
Fox now makes the .19 RC engine in a new version with ball-bearings and schneurle porting for extra power.

### FOX .25 RC

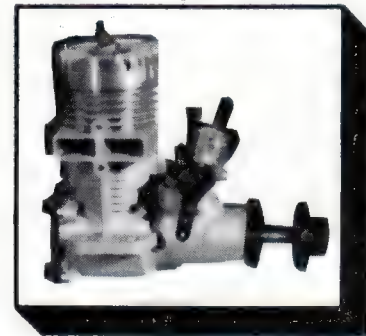
The Fox .25 RC now comes with the MK-X carb as standard equipment.



Bore .....	.680	Weight .....	.8 oz.
Stroke .....	.680	RPM with 9-4 prop .....	12,000
Displacement .....	.25		

The Fox 25 power output is surprisingly great for an engine of this size and weight. It will easily fly most airplanes designed for 29 to 35 size engines, and yet weighs less and burns less fuel. On the other hand the Fox 25's light weight makes it ideal for airplanes normally calling for a 15 or 19 size motor. If your 15 or 19 size airplane is building up too much weight and is getting hard to get off the ground, install a Fox 25. Some of the construction features are: Main bearing SAE 660 continuously cast bronze, 7/16" diameter, piston is machined from mehanite bar and the cylinder from leaded steel. Connecting rods are machined from solid bar.

### FOX .29 RC



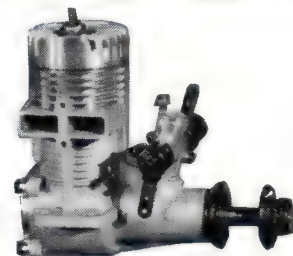
Bore .....	.738	Weight .....	.7 1/2 oz.
Stroke .....	.700	RPM with 9-6 prop .....	12,000
Displacement .....	.29		

The Fox 29 was first introduced in 1957 and has since gone through various series of refinements. While it is not quite as powerful as the more modern schneurle ported engines, it will give you more power per ounce of fuel and more power per dollar than any other 29 we know of. Our present version has been debugged for 20 years and you can expect a minimum of problems. Parts are generously proportioned, crankshaft is a full 1/2" diameter. The R/C version features a longer crankshaft and an exceptionally linear simple to operate type carburetor.

### FOX .36 RC

Bore .....	.800	Weight .....	.7 1/2 oz.
Stroke .....	.715	RPM with 10-6 prop .....	10,500
Displacement .....	.359		

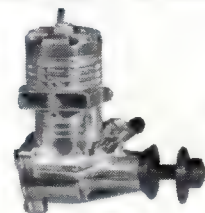
The Fox 36 is a bushing main, baffle piston type motor. As compared with the more glamorous schneurle ported ball bearing motors, this motor has more power per dollar, more power per ounce of weight and better fuel economy. Today's version of the Fox 36 has been thoroughly developed over the years and is easy starting and trouble free. RC flyers like this motor because of its smooth carburetor with exceptional linear characteristics. Some of the construction features are: Crankshaft a full 1/2" diameter, main bearing continuously cast SAE 660 bronze, piston is mehanite and cylinder is leaded steel.



### FOX 35 STUNT (No. 13500)

Bore .....	.800	Weight .....	.6 1/2 oz.
Stroke .....	.700	RPM with 10-6 prop .....	9,500
Displacement .....	.352		

The Fox 35 Stunt is probably the most successful model airplane motor of all times. First introduced in the winter of 1948, it was skyrocketed to fame by winning first in the 1949 Stunt Nationals. In virtually unchanged form it has continued to win more control line stunt contests than all other makes combined. This fantastic motor has running characteristics that make it uniquely adapted to control line stunt. The RPM changes with airplane attitude in such a way as to anticipate what the model needs. This engine also makes a very excellent beginner engine because it is so easy to start. This engine is offered in only one configuration and carburetor arrangement. This is the same arrangement that has won over 16,000 contests.



**AVAILABLE BUT NOT PICTURED IS THE FOX .36 BB COMBAT SPECIAL U/C ENGINE.**



FOX

# Schneurle Power At Baffle Motor Prices

Fox .40 RC Bushing No. 24000  
Fox .40 RC Ball Bearing No. 24100  
Fox .45 RC Bushing No. 24500  
Fox .45 RC Ball Bearing No. 24600

NOW ALL FOX .40'S AND .45'S COME WITH THE NEW IMPROVED MK-X CARBURETOR FOR EVEN BETTER PERFORMANCE!

If you would like to convert your present Fox engine to one with the new MK-X carb see page 233 for the correct size.

Picture does not show the MK-X carb.

## FOX .40 RC SCHNEURLE

The 1980 model Fox 40 Bushing features improved cylinder porting plus an improved button type head. Result: a bushing 40 that will really haul a model. The mehanite piston's design allows some of the bypass gases to go through it, keeping it cool and eliminating any freezing problems. The crankcase features a large rear cover and a very efficient schneurle porting arrangement. Yet with all this power, the Fox 40 performs very well at slow speed. The 40 RC will idle and take the throttle better than any other. A flange mounted carburetor means zero crankcase distortion. The crankshaft is a generous 9/16" diameter on the main and has a replaceable prop stud. Removing two screws and changing the intake assembly will convert your RC to a control line motor. While it's one of the lowest cost 40's on the market, it will outrun many BB engines.

## FOX .40 RC BALL BEARING SCHNEURLE

The Fox 40 BB is undoubtedly one of the finest 40's you can buy. We know of no other 40 engine, regardless of cost, which will pull a 10-6 prop faster. Improvements for 1980 include a completely redesigned bell shaped combustion chamber which runs faster than before and a restyled exterior which we feel you will like. The measure of any engine is how it flies your airplane. In this department the Fox 40 excels. It is very easy starting, docile to handle and puts out excellent power even in over-rich or over-lean settings. The parts are sturdy and structural failures almost never occur. The cylinder is nitrided for long life, the piston fitted with one free-to-rotate compression ring which practically never wears out.

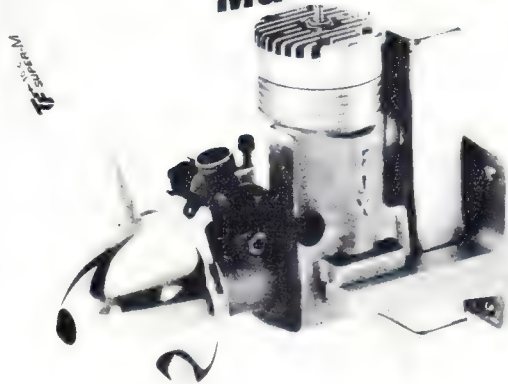
## FOX .45 RC SCHNEURLE

The Fox 45 for 1980 is built in the same set of castings as the Fox 40 and differs only in the cylinder, piston, wrist pin and head button, in that these are designed for larger bore. Like the Fox 40 the motor is very easy starting, extremely non-critical on needle valve adjustments and easily the most powerful bushing 45 on the market. The power output is well over one horsepower and it will handle RC ships designed for 60 size engines and yet give you lighter weight and better fuel economy. The most significant change for 1980 model is a switch to a bell shaped combustion chamber and a replaceable head button. This gives a substantial power increase. On a horsepower per dollar basis the Fox 45 is probably the best value on the market. Try a Fox 45 and you will be glad you did!

## FOX .45 RC BALL BEARING SCHNEURLE

Our tests show this remarkable engine to be the most powerful 45 on the market. It will put out over one horsepower on straight alcohol fuel and more on nitro fuel. Unlike other high performance engines, the Fox 45 has no temperamental characteristics. It starts easily, idles excellently, has the most linear throttle response of any 45 on the market. It is also extremely durable. The crankcase walls are 3/32" thick. The crankcase has a 19/32" diameter. It has a generously proportional connecting rod. It is easy on glow plugs. 1980 modifications consist of a head re-design and an appearance treatment. The new head is of the two piece button concept featuring a trumpet shaped combustion chamber that seems to produce another 4-500 RPM. Appearance changes are obtained by matching the fins.

say "Goodbye" to External Muffler Eyesore!



We think you'll like the

## FOX .36RX

A very compactly muffled R/C engine

**Muffler is within your cowling — Exhaust exits beneath the aircraft!**

FOX .36RX including Muffler . . . . .  
(Motor Mount, Prop & Spinner not included)

Cowlings are fairings to airfoil around an engine. Naturally not much room left within. You can't fit a muffler in too, so scale realism goes down the drain as you hang a muffler out the side, hoping folks view your bird from the left. Well, Duke can fit it in, Fox engineers what you need before you know you need it. The Fox .36RX's muffler clings right onto the engine, even within the engine mount. It's a potent powerplant too, r.p.m.'s increased considerably over the familiar side-ported Fox .36 engine. A rugged 1/2" bronze main bearing, dual bypasses, sand cast case and button head aluminum piston. A real performer and the price is right.

## FOX .60 RC EAGLE I WITH NEW MK-X CARB

IMPROVEMENTS OVER EARLIER MODELS:

1. New MK-X carb is standard.
2. Modified head with offset plug does not require nitro.
3. Enlarged lower end.
4. Bushed con rod.

Consistently gives over one minute per ounce of fuel. Many .40's won't do as well.

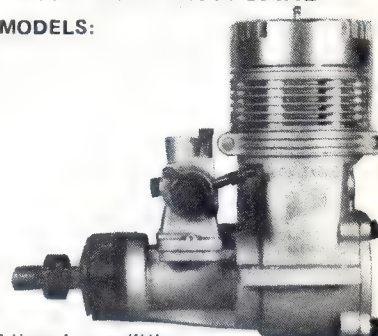
Other features:

Weight - at 14 1/2 oz. the Fox Eagle is the lightest .60.

Starter not required - two ring design gives excellent compression.

Power - on props you use 11-8 or 12-6 there is very little difference between an Eagle and the most costly imports.

Service - Fox users say it is the finest anywhere.



FCX00035	FCX #13500 .35 U/C ENGINE	31.95	22.35	234
FCX00136	FCX #13700 .36BB COMBAT U/C	59.95	39.95	234
FCX01015	FCX #21600 .15 RC SCHNEURLE	39.95	26.95	234
FCX01020	FCX .19 RC W/MK-X CARB #21900	41.95	27.95	234
FCX01026	FCX .25 RC W/MK-X CARB #22500	41.95	27.95	234
FCX01029	FCX #22900 .29 RC ENGINE	49.95	29.95	234
FCX01036	FCX #23600 .36 RC ENGINE	49.95	29.95	234
FCX01037	FCX #23899 .36 RX RC W/MUFFLER	59.95	39.95	233
FCX01041	FCX 40 SNL W/MKX CARB #24CC0	64.95	42.95	235
FCX01046	FCX 45 SNL W/MKX CARB #245C0	64.95	42.95	235
FCX01115	FCX #21698 .15 RC SCHNEURL 2BB	59.95	39.95	234
FCX01119	FCX 198B SNL W/MKX CARB #220C0	74.95	49.95	234
FCX01141	FCX 408B SNL W/MKX CARB #241C0	79.95	51.95	235
FCX01146	FCX 458B SNL W/MKX CARB #246C0	79.95	51.95	235
FCX01162	FCX #26200 .60 EAGLE 2 SIDE EX	125.00	83.95	233
FCX01163	FCX #26299 .60 EAGLE 2 REAR EX	125.00	83.95	233
FCX01165	FCX .60 RC EAGLE W/MK-X CARB	79.95	53.95	235
FCX01520	FCX 1.2 CU IN -20CC- TWIN	250.00	189.95	233
FCX02560	FCX #263C0 .60 EAGLE 2 MARINE	175.00	113.75	233
FCX11005	FCX #21950 MK-X CARB FOR 19-25	19.95	16.95	233
FCX11010	24051 MKX-A CARB FOR 40E45	24.95	19.95	233
FCX11020	26051 MKX-B CARB FOR 60ETWIN	24.95	19.95	233
FCX11030	26151 MKX-C CARB-ROBAT PUMP	24.95	19.95	233
FCX11040	26251 MKX-D CARB-TUNED PIPE 60	24.95	19.95	233

SEE PAGE 325 FOR MUFFLERS



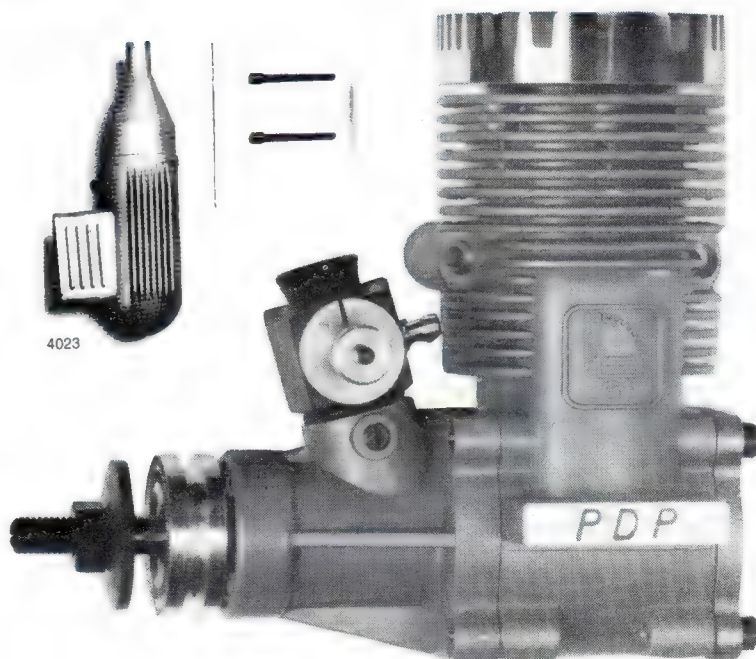
## HB ENGINES

HB Engines are precision made for power, performance, and reliability. Every HB engine includes ball-bearings and a Perry carburetor. Several models offer PDP (Perry Directional Porting) which is additional inlet slots in the cylinder sleeve and a channel in the crankcase which increases power and speed (up to 1,500 RPM's more). All marine versions come with cooling jacket and flywheel. Several of the engines (see price listing) come with mufflers. Tuned pipes and adaptors are also made by HB to fit their .40-.61 sizes; see page 237 for pictures.

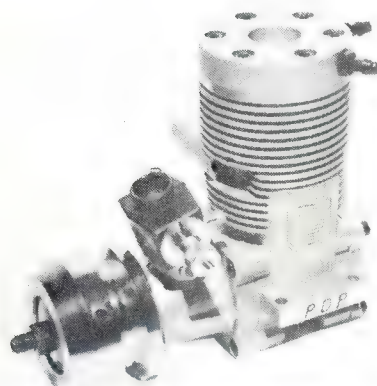
HBE01112	HB #1200	.12 RC	W/MUFFLER	42.00	31.50	236
HBE01115	HB #1500	.15 RC	W/MUFFLER	45.50	33.95	236
HBE01120	HB #2000	.20 RC	W/MUFFLER	53.00	39.95	236
HBE01125	HB #2500	.25 RC	W/MUFFLER	59.00	43.95	236
HBE01140	HB #4000	.40 RC		73.00	54.95	236
HBE01150	HB #5000	.50 RC		80.50	59.95	236
HBE01161	HB #6100	.61 RC		108.00	79.95	236
HBE01221	HB #2300	.21 RC	PDP W/MUFFLER	67.50	49.95	236
HBE01240	HB #4200	.40 RC	PDP	89.00	66.95	236
HBE01261	HB #6300	.61 RC	PDP	125.50	93.95	236
HBE02112	HB #1300	MARINE .12 RC	W/MUFF	50.50	37.95	236
HBE02120	HB #2100	MARINE .20 RC	W/MUFF	68.50	50.95	236
HBE02125	HB #2600	MARINE .25 RC	W/MUFF	73.00	54.95	236
HBE02140	HB #4100	MARINE .40 RC		82.50	61.95	236
HBE02161	HB #6200	MARINE .61 RC		113.50	84.95	236
HBE02240	HB #4300	MARINE .40 RC	PDP	99.00	73.95	236
HBE02261	HB #6400	MARINE .61 RC	PDP	153.00	109.95	236
HBE02421	HB #2200	.21 RC	PDP RACE CAR	65.00	48.95	236
HBE16023	HB #4023	MUFFLER	FITS 40-61	10.70	8.95	236



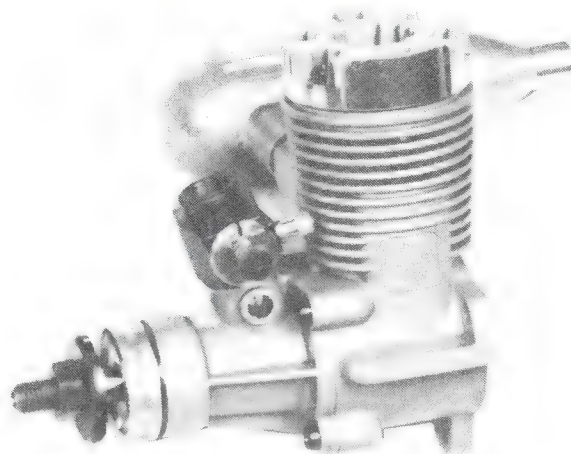
4023



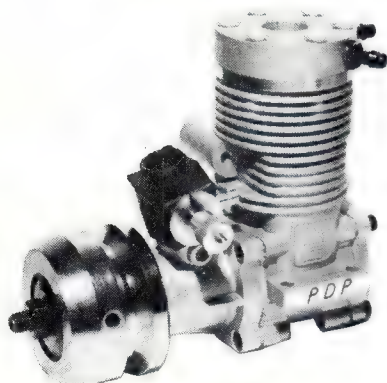
HB .61 RC BB PDP



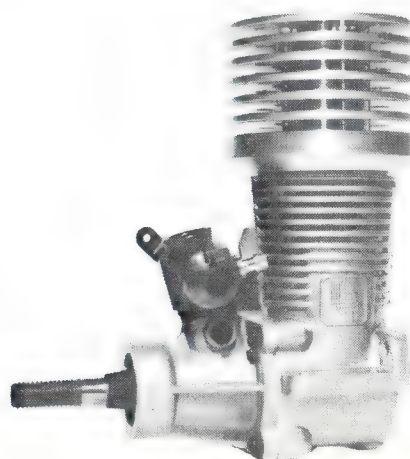
HB .61 RC BB PDP MARINE



HB .25 RC BB WITH MUFFLER



HB .40 RC PDP MARINE



HB .21 RC BB PDP (RACE CAR)

ALL HB  
ENGINES  
ARE  
BALL BEARING



## HB ENGINES



HB16224	HB #7024 TUNED PIPE .40-.50	35.75	28.60	237
HB16225	HB #7025 TUNED PIPE .61	39.95	31.95	237
HB16326	HB #7026 PIPE ADAPTOR 1 3/4"	17.75	14.95	237
HB16327	HB #7027 PIPE ADAPTOR 1 5/8"	21.55	17.75	237
HB16328	HB #7028 PIPE ADAPTOR 2 7/8"	18.35	15.60	237

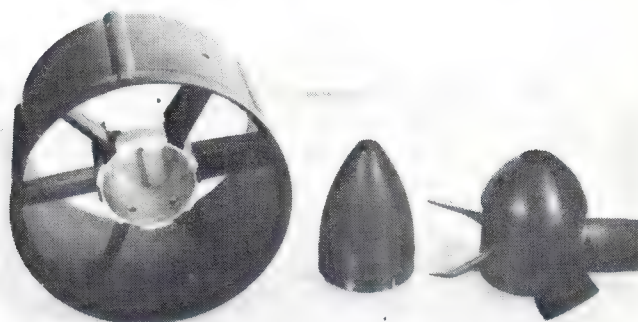
Pictured above are the tuned pipes and adaptors that fit the HB .40, .50 and .61 engines. Of course the pipes can be purchased separately and used on other engine brands.

## JET HANGAR HOBBIES TURBAX I™

(Patent 241,360)  
Ducted Fan  
(Formerly J. J. Scozzi Inc.)

### Specifications

Length	9"
Shroud Diameter	5 1/4"
Fan Diameter	4 1/4"
Thrust	To 7 1/2 lbs.
Engine	.40-.45 (not included)



Designed for use with K & B 9100 (7.5cc) Ducted Fan Engine.

### General Information

Refined from its initial inception, this unit is the ultimate in performance and simplicity. Constructed of precision engineering thermoplastics, and machined aluminum, it is designed for use with aircraft weighing up to 18 lbs. Latest features include new lightweight turbine body, designed specifically for the new front rotor engine. Installation of unit has been reduced to a simple, lightweight rail mounting technique similar to conventional engines. There is also a significant weight reduction over earlier models. Throttling has been brought within conventional means through use of a front rotor engine and Perry pump and carburetor.

In view of the fact that this is a new phase of the hobby industry, we would like to caution the modeler to proceed with maximum care when constructing, installing, and running a ducted fan. Factors such as high engine power and prop suction warrant that all modelers take safety precautions beyond those normally used. A detailed procedural safety list is included with every Turbax unit.

The Turbax I unit requires a minimum of mechanical assembly. Flight speeds in excess of 100 mph are obtainable with proper internal engineering.

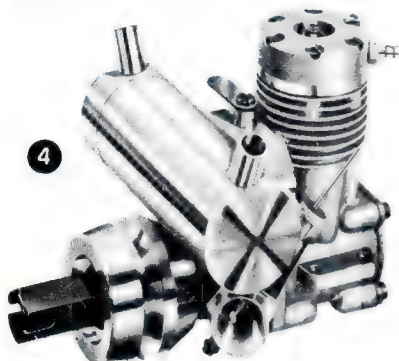
The following kits have been designed around the Turbax I for maximum efficiency and performance: Jet Hangar Hobbies' Mirage III and F9F-8 Cougar; Bob Violett Models' A-4 Skyhawk and F-86 Sabrejet.

Jet Hangar Hobbies also produces a Turbax 1 ducted fan unit made especially for the Bob Violett A-4 Skyhawk kit on page 114 of this catalog.

JET17100	JET HANGAR DUCTED FAN .40 SIZE	69.95	57.95	237
JET17200	JET HANGAR SKYHAWK DUCTED FAN	75.00	63.95	237



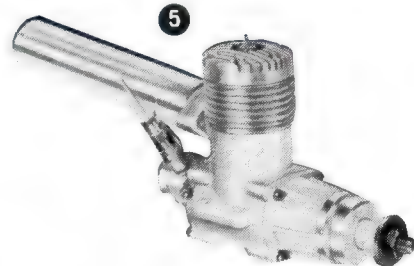
## K & B



4

**K & B 3.5cc (.21) R/C ENGINE** Designed specifically as a marine engine. Powerful, rugged and dependable. Will provide countless hours of high-performance operation. Easy to start, no break-in required. Precision machined U-Joint Nuts fit most existing ball drives.

**Features include:** • Efficient Muffler — under 90 decibels • ABC Cylinder and Piston • Ball Bearings • Water-Cooled Head • Rear Exhaust — Butterfly Throttle • Rotatable Case (center block)—permits changing exhaust from forward to aft position. Cat. No. 8384

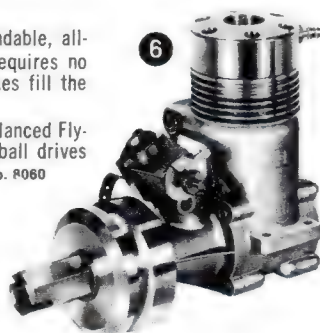


5 9120

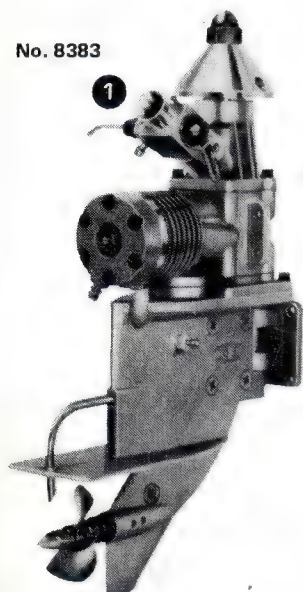
**K&B 6.5cc (.40) Racing Engine** "Out of the box" the most powerful production 6.5cc engine ever built! **Features:** ABC cylinder & piston; schneurle porting; Rear exhaust; Muffler; Ball bearings; High density aluminum die casting.

**6 K & B .40 R/C MARINE SPORT POWERPLANT** An ideal, dependable, all-purpose engine. It has superb power, is easy to start and requires no break-in. For consistent peak performance in all marine engines fill the tank with K & B fuel. Your choice of six blends.

**Features include:** • Perry Carburetor • Water-Cooled Head • Balanced Flywheel • Precision-Machined U-Joint Nut — fits most existing ball drives • Install, start, and go-o-o-o! Cat. No. #060



No. 8383



NOW WITH R/C CARB

**K & B 3.5cc (.21)**

**OUTBOARD ENGINE** The first of its kind. Destined to set a pace others will follow! With ABC piston and liner, this water cooled competition engine is the ultimate in outboard engines. It offers the superior control characteristics of outboard drive.

**It features:** ball bearings, flywheel designed for cup electric starter, close, simple steering and throttle linkage, underwater pick-up, intergral cavitation plate and skeg, tough transom mounting plate to withstand stress of flat-out racing.

**Also available for the outboard:**

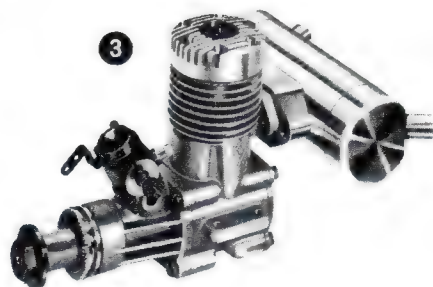
No. 8683 K&B Outboard Carburetor Conversion Kit updates the carb systems for outboards No. 8381 and No. 8382 to No. 8383.

No. 8680 Multi Speed Carb Only.

No. 8650 Outboard Adjustable Motor Mount.

No. 8572 Outboard throttle link.

No. 8591 Auto Trim for O.B.



**3 K & B 3.5cc (.21) R/C ENGINE**

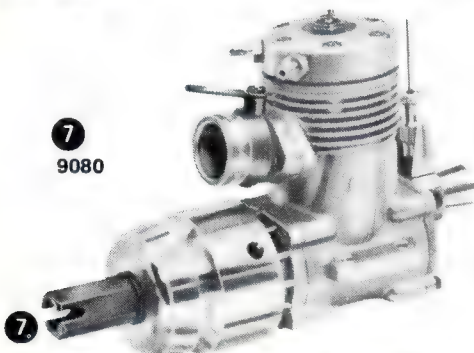
A real workhorse for its size. Rugged, powerful and dependable. Will give all competitors in its class size a "run for the money." No break-in period required. Easy to start. Another "honey" of a K & B engine!

**Features include:**

• Efficient Muffler — under 90 decibels  
• ABC Cylinder and Piston • Ball Bearings • Advanced By-Pass Porting • Perry Carburetor • High Density Aluminum Die Casting.

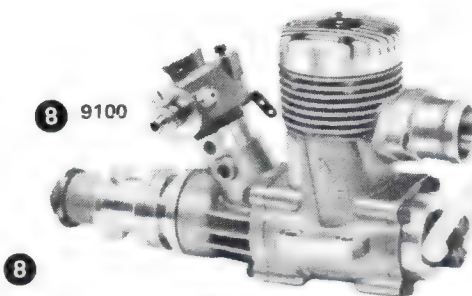
Cat. No. 8380

7 9080



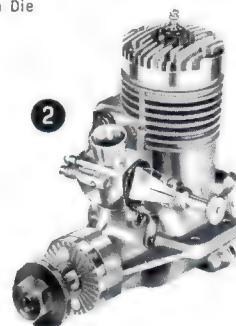
**K&B 7.5cc (.45) RC Inboard Marine Racing Engine** We feel certain this new K&B 7.5cc Marine Engine will break many or all of the existing records held by the highly successful K & B 6.5cc Marine Engine. It has power to spare! It is equipped with a rear exhaust butterfly throttle and water cooled head. **Features include:** Chromed brass sleeve and low expansion aluminum piston constitute the ABC combo; Con rod - machined from 7075-T6 aluminum solid bar stock. Bushed both ends; Rear rotor - with all new machined steel rotor disc; Ball bearings; Rotatable case - permits changing of exhaust from forward to aft; Beefed up crankshaft - tungsten alloy counter weights for super smooth operation.

8 9100



**K&B 7.5cc (.45) Ducted Fan Engine** Another sure winner! This engine has been developed specifically for ducted fan operation. We feel as confident about this ducted fan engine as we do the Marine engine. Now you can have a ducted fan engine right out of the box complete with Perry pump/Pump Carb. **Features:** Chromed brass sleeve and low expansion aluminum piston constitute the ABC combo; Con rod - machined from 7075-T6 solid aluminum bar stock. Bushed both ends; Ball bearings; Perry carb; High performance head machined from solid aluminum bar stock; schneurle porting.

2



**2 K & B VECO .19R/C**

The "squish band" head machined from solid aluminum bar stock, extra deep fins for cooler running and increased speed, machined surfaces of head and crankcase eliminate need for a head gasket. Includes coupled exhaust/intake throttle control linked to carburetor for smoother idle ... precision ball bearings.

Cat. No. 6712

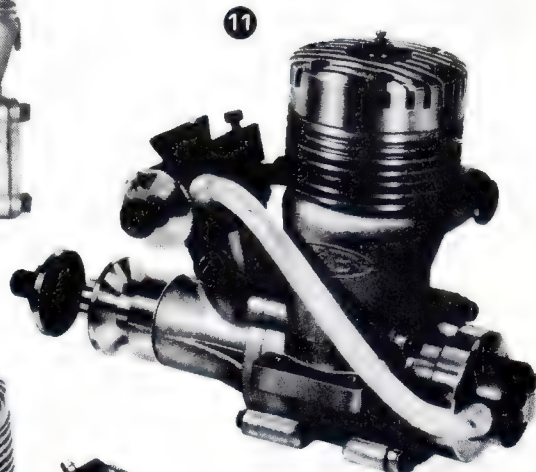
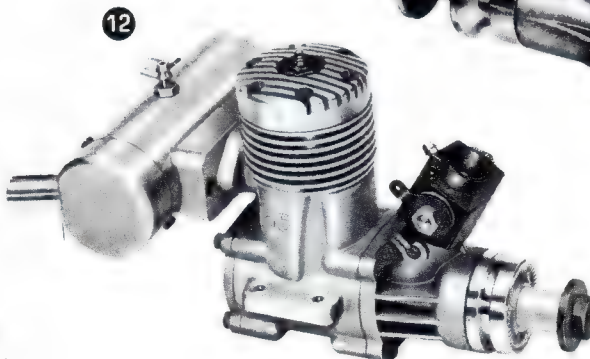
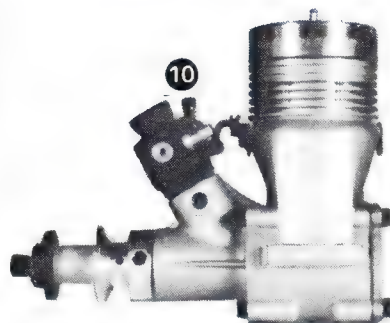
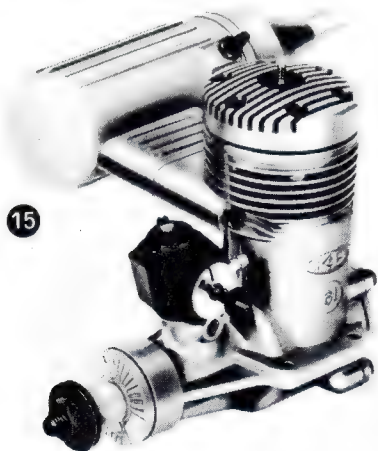


## K & B

### 15 K & B .61R/C WITH MUFFLER

The improved K & B .61 features a new crankshaft that eliminates the necessity of drilling or enlarging hole in propellers. A top performing pattern engine, it competes with the best. The new, improved muffler is even quieter but in no way inhibits the performance of the engine. It is rugged in construction, contemporary in design, and is fitted with a pressure tap.

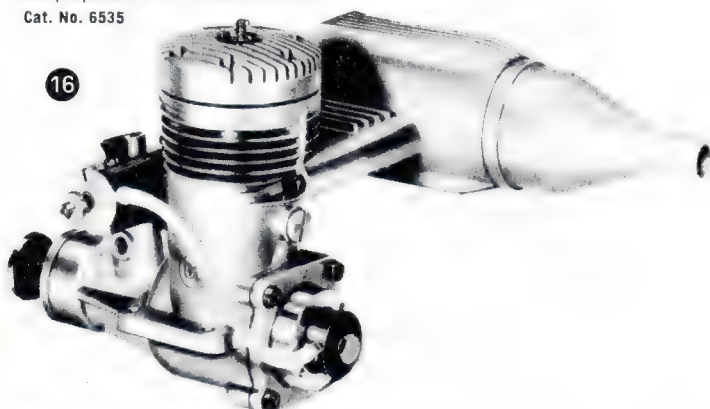
Cat. No. 6525



### 16 K & B .61R/C WITH PERRY PUMP/REGULATOR

Incorporates the most advanced step in model engine fuel systems to take place in many years . . . equipped with a Perry Pump/Regulator and a larger Perry Carburetor specifically designed to be used with the Pump/Regulator system. Increases the h.p. to equal or surpass many .61 engines made today. Fuel is not drawn but fed into the carburetor through pressure by the regulated pump unit. Regulator adjustable for the most efficient operation to match various flying conditions. Positioning of the fuel tank is no longer critical . . . even wing tanks can be used and still maintain a reliable fuel feed. Easy to start. Flip the prop and fuel will start to flow.

Cat. No. 6535



10

### K & B .40 R/C THE MOST POPULAR R/C ENGINE EVER!

A front rotor type engine designed for Pattern Flying. It incorporates a large by-pass for more power produced by a unique machining process.

Features include: New Irvine carburetor for smooth response. Slow, smooth idle to top speed—"Squish band" racing head—now standard—Exclusive K & B no tension, single ring and aluminum piston—no long break-in period required. Bolt-on muffler is standard now. The exhaust butterfly has been removed.

### 11 K & B .40 R/C WITH PERRY PUMP/REGULATOR

The same K & B .40 R/C as the outstanding No. 8011 but equipped with a Perry Pump/Regulator\* and a larger Perry Carburetor specifically designed to be used with the Pump/Regulator system . . . gives a 1000 rpm increase.

\*For technical data see the K & B .61 R/C descriptive copy.

Cat. No. 8360

12 9130

### K&B 6.5cc (.40) RC FRONT ROTOR

Unbelievable horsepower in a front rotor RC engine - for RC Scale, RC Pattern. Features include: ABC Cylinder & piston; Rear exhaust; Muffler; Ball bearings; Machined 7075T-6 Con rod - bushed both ends; Schneurle porting; High density aluminum die casting. Cat. No. 9130

K&B engines are domestically made in California. They are excellent engines and represent some of the biggest values in the engine market. Parts are readily available from the factory which is a real advantage. Some of the engines come with mufflers as show. See page 323 for K&B mufflers for the .19 and .61 and the tuned pipe that fits the .45's (7.5 cc).

K&B00040	K&B #9120 .40 RR RE FOR FORM I	95.00	66.95	238
K&B00645	K&B #9080 .45 SCHNEURLE MARINE	125.00	87.50	238
K&B14650	K&B 8650 OUTBOARD ADJ. MOUNT	8.95	7.95	239

K&B01039	K&B #8011 .40 RC W/MUFFLER	82.50	54.45	239
K&B01041	K&B #8360 .40 RC PRESSURIZED	105.00	69.95	239
K&B01119	K&B #6712 .19 RC ENGINE	60.00	44.95	238
K&B01140	K&B #9130 .40 RC RE SNL W/MUFF	110.00	74.95	239
K&B01145	K&B #9100 .45 RC RE SNL W/PUMP	160.00	106.95	238
K&B01161	K&B #6525 .61 RC W/MUFFLER	99.50	66.95	239
K&B01162	K&B #6535 .61 RC PRESS. W/MUFF	125.00	82.95	239
K&B02222	K&B #8383 .21 RC OUTBOARD	110.00	71.95	238
K&B02321	K&B #8384 .21 RC MARINE W/MUFF	81.00	56.70	238
K&B02440	K&B #8060 .40 RC SPORT MARINE	82.50	56.95	238
K&B05121	K&B #8380 .21 RC SCHNRL W/MUFF	80.00	55.95	238
K&B10072	K&B #8572 C.B. THROTTLE LINK	9.50	6.95	238
K&B10091	K&B #8591 AUTO TRIM FOR D.B.	15.95	12.75	238
K&B11660	K&B #660 K&B 40 IRVINE CARB	14.95	12.95	239
K&B11680	K&B #680 OUTBOARD CARBURETOR	13.95	10.80	239
K&B11683	K&B #883 CUTBO ENGINE RC CONV.	16.75	14.25	239



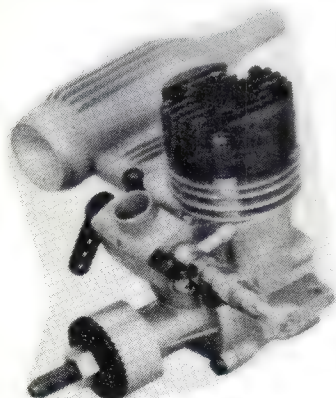


DISTRIBUTED BY SIG MFG.

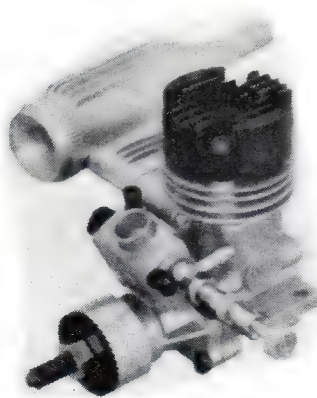
*\*NOW YOU CAN FLY A  
SCHNEURLE-TYPE ENGINE  
AT A REASONABLE COST!*

Fuji offers the modeler an exciting line of glow model engines. These die-cast aluminum alloy engines range from .099 to .40 in size. All engines shown on this page feature schneurle porting for added power. Fuji engines are long lasting, strong running and precision engineered to top quality standards. The carburetors are easily adjusted to a consistent idle. Sport fliers will appreciate the small size schneurle engines which have the extra power required to give small airplanes good flight performance. You'll have no muffler adaptor and fitting problem with a Fuji. A custom fit muffler with a pressure tap is supplied with each engine.

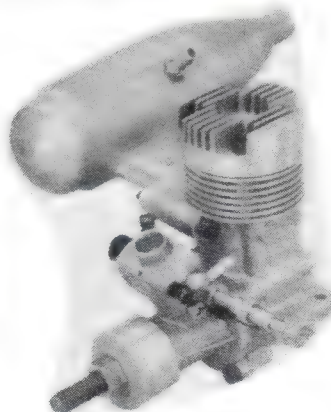
These engines are made from carefully selected materials which are quality controlled through all stages of manufacture. Every engine is checked out and tuned for maximum performance.



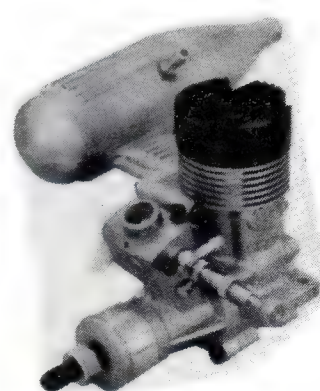
099 RC SCHNEURLE



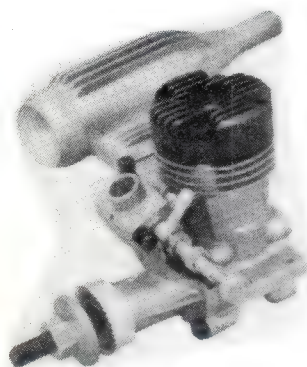
099 BB RC SCHNEURLE



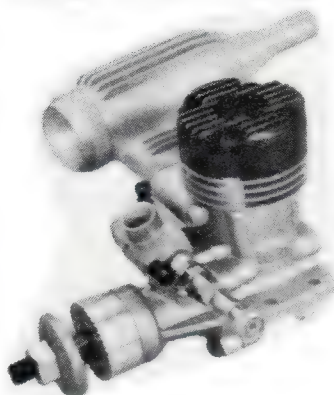
25 RC SCHNEURLE



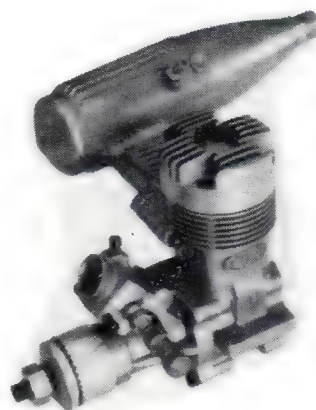
25 BB RC SCHNEURLE



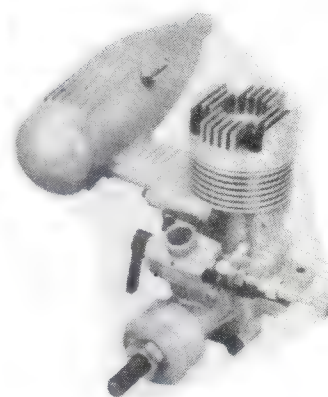
15 RC SCHNEURLE



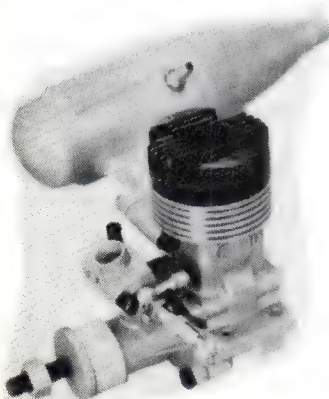
15 BB RC SCHNEURLE



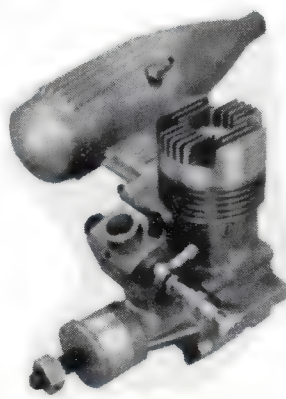
35 RC SCHNEURLE



40 BB RC SCHNEURLE



19 RC SCHNEURLE



19 BB RC SCHNEURLE

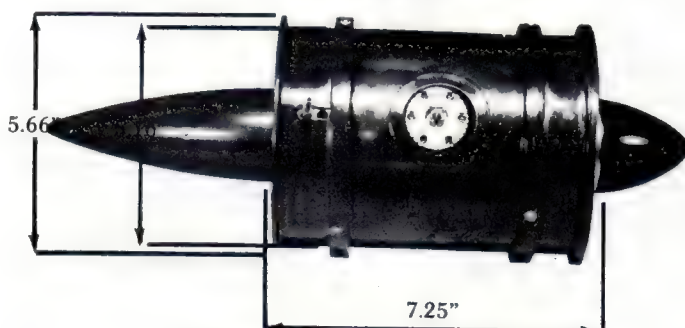
FUJ01009	FUJI .099 RC SCHNEURLE W/MUFF.	31.95	23.95	240
FUJ01015	FUJI .15 RC SCHNEURLE W/MUFF.	34.95	25.95	240
FUJ01019	FUJI .19 RC SCHNEURLE W/MUFF.	39.95	29.95	240
FUJ01025	FUJI .25 RC SCHNEURLE W/MUFF.	44.95	33.75	240
FUJ01035	FUJI .35 RC SCHNEURLE W/MUFF.	52.95	39.75	240
FUJ01109	FUJI .099 BB RC SCHNEURLE W/MUF	26.95	27.75	240
FUJ01115	FUJI .15 BB RC SCHNEURLE W/MUF	44.95	33.75	240
FUJ01119	FUJI .19 BB RC SCHNEURLE W/MUF	47.95	33.95	240
FUJ01125	FUJI .25 BB RC SCHNEURLE W/MUF	52.95	39.75	240
FUJ01140	FUJI .40 BB RC SCHNEURLE W/MUF	79.95	59.95	240



## MIDWEST

### AXIFLO DUCTED FAN KITS ADDS NEW DIMENSION TO FLYING!

#### AXIFLO RK-40 #803



MIDWEST AXIFLO RK-40 FAN  
FOR .40 DISPLACEMENT CLASS ENGINES

#### Technical Specification

##### Dimensions

Length (tank and spinner not included)	7.25 in.
Duct inside diameter	5.10 in.
Barrel outside diameter	5.16 in.
Ring diameter (4)	5.66 in.
Rotor diameter	5.04 in.

##### Rotor

5 blades  
Proof spin-tested to 30,000 RPM (no failures)

##### Stators

6 blades (3 forward, 3 aft)  
Twisted to recover whirl energy  
Cylinder head aerodynamic fairing

##### Tank

3 line  
Polyethylene  
9 oz. capacity  
Williams fittings

##### Weight

Less engine 16 oz.  
With engine approx. 27 oz.

Static Thrust (typical .40 class engines)

Engine/RPM		Fuel	Thrust	Recommended Max. Model	
		% NITRO	LB.	Weight*	LB.
K&B .40S	18,000	25%	6.65		9.0
	19,000	50%	7.31		10.0
OS .40SR	17,200	FAI	6.10		8.4
	19,000	50%	7.27		10.0
WEBRA Speed .40 R/C	17,200	25%	6.10		8.4
K&B .40 R/C	15,800	25%	5.00		6.8
OS .40 FSR	16,600	25%	5.60		7.7
HP .40 RPR	16,300	FAI	5.53		7.6
WEBRA Speed 40 Pylon	19,800	?	7.75		10.6

#### NOTES:

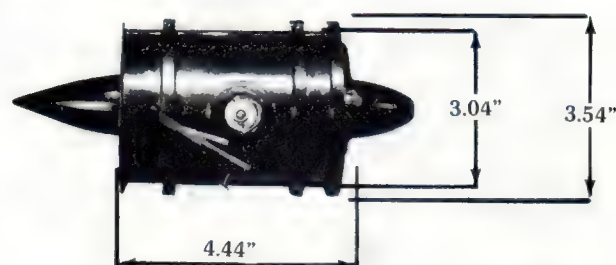
- All above using Peter Chinn's engine data except for WEBRA speed .40 Pylon, which was manufacturer's data.
- \* See RCM Ducted Fan Article by Robert W. Kress, Fall '77.



#### AXIFLO RK-20B — #802 — NEW

The RK-20B is the first in a new series of Axiflo's designed primarily for ease of assembly. It consists of five major assembly parts molded in plastic. All stators are molded in place — No alignment is necessary. An integral 4-1/2 oz. fuel tank is included. Thrust range is 3.0-4.0 lbs. depending on engine type.

#### AXIFLO RK-049 #801



MIDWEST AXIFLO RK-049 DUCTED FAN  
FOR .049 DISPLACEMENT CLASS ENGINES

#### Technical Specification

##### Dimensions

Length (tank and spinner not included)	4.44 in.
Duct inside diameter	3.00 in.
Barrel outside diameter	3.04 in.
Ring diameter (4)	3.54 in.
Rotor diameter	2.96 in.

##### Rotor

5 blades  
Proof spin-tested to 30,000 RPM (no failures)

##### Stators

6 blades (3 forward, 3 aft)  
Twisted to recover whirl energy  
Cylinder head aerodynamic fairing

##### Tank

3 line  
Polyethylene  
1.5 oz. capacity  
Williams fittings

##### Weight

Less engine 3.9 oz.  
With engine approx. 5.7 oz.

Static Thrust

Engine/RPM		Fuel	Thrust	Recommended Max. Model	
		% NITRO	oz	Weight*	oz
Cox TD .049	20,000	25%	16.00		26-28

#### NOTES:

- Above using Peter Chinn's engine data
- \* See RCM Ducted Fan Article by Robert W. Kress, Fall '77.

Axiflo is lightweight for maximum aerodynamic efficiency, low in cost and all parts are ready for assembly — and you can put your Axiflo together in two evenings.

Available in four sizes, .049, .20, .40, and .60\*, with integral tailcone fuel tank and operable with or without tank pressure — fully throttleable. Front or rear rotor engines can be used and motor mount can be removed to change engines. For good stock engines, racing engines are not required but can be used, if desired. Matching model kits of jet aircraft are planned.

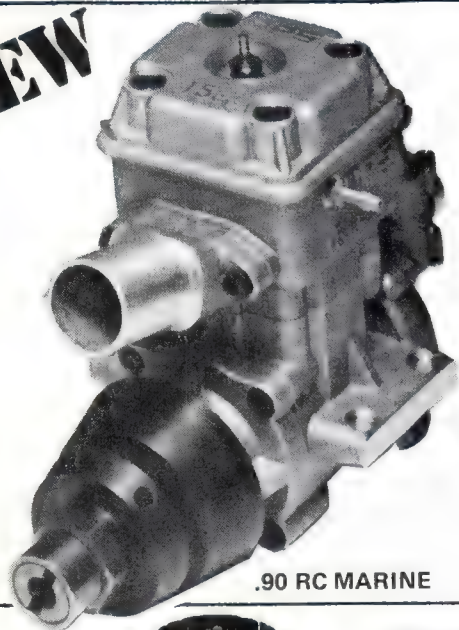
\* These Sizes Will Be Available Later.

MID17C49	MIDWEST RK-049 AXIFLO FAN	40.95	32.75	241
MID17200	MIDWEST RK-20B AXIFLO FAN	54.95	43.95	241
MID17400	MIDWEST RK-40 AXIFLO FAN	49.95	39.95	241

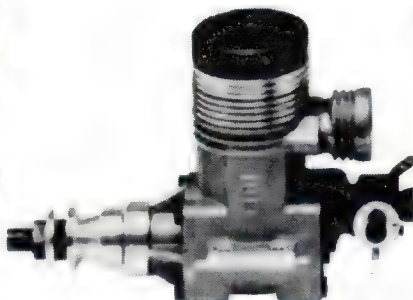


**NEW**

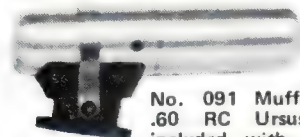
## O. P. S. ENGINES FOR ALL-OUT COMPETITION PERFORMANCE!



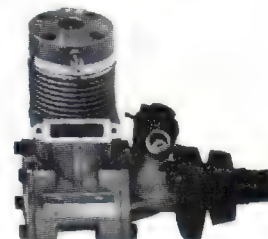
**.90 RC MARINE**



The .65 RC . . . A great engine where all-out power is required . . . like the Byron Pitts.

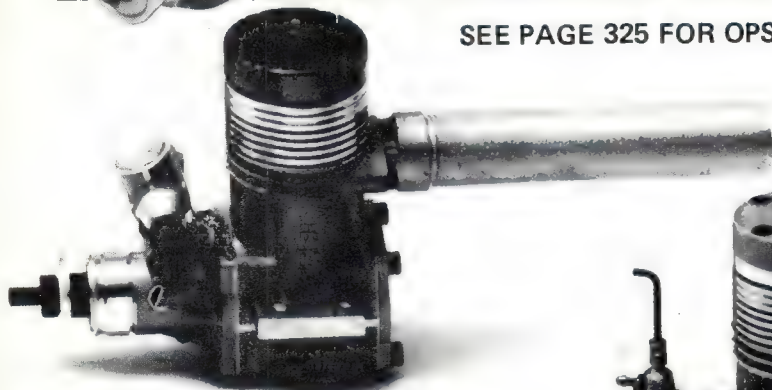


No. 091 Muffler for .60 RC Ursus. Not included with engine.

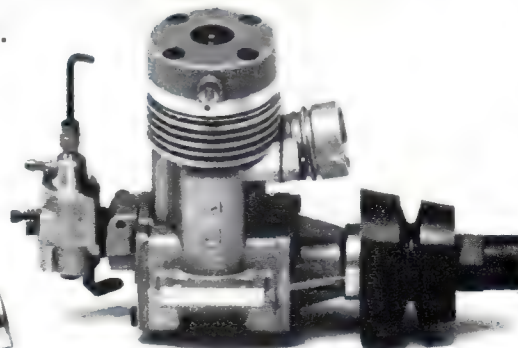


**.60 URSUS W/PERRY CARB**

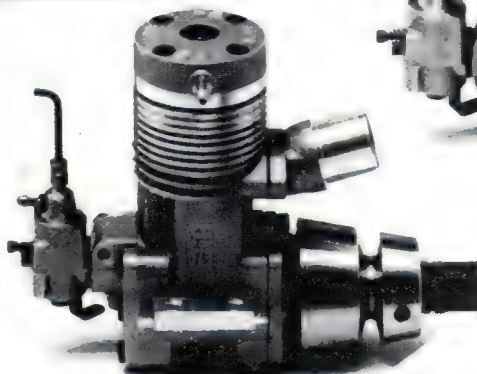
SEE PAGE 325 FOR OPS TUNED PIPES.



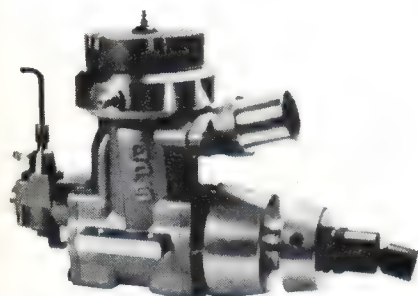
**.60 RC BIG RED**



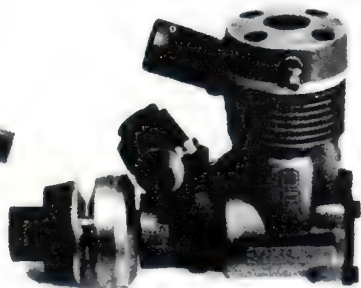
**.40 RC MARINE**



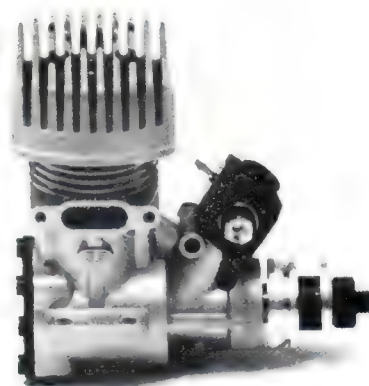
**.60 RC MARINE**



**.65 RC MARINE**



**3.5cc RC MARINE**



**3.5cc RC CAR**

All O.P.S. engines feature Schneurle porting, along with the ABC piston and sleeve design, twin ball bearing shaft, cast piston of high silicone alloy, forged or machined aluminum rods, brass bushings, and squish band head with hemispherical combustion chamber. Big Red .60 comes with slide valve carb. All marine engines come with cooling head, flywheel, both universals, and racing RC carb. 3.5cc car engine comes with heat sink and special Perry Carb. All come with appropriate tuned pipe except for car engine.

OPS02121	CPS MARINE 3.5CC RC W/#392PIPE	139.00	112.95	242
OPS02140	CPS MARINE .40 RC W/#492 PIPE	162.00	129.95	242
OPS02160	CPS MARINE .60 RC W/#692 PIPE	195.00	149.95	242
OPS02165	CPS MARINE .65 RC W/#678 PIPE	246.00	189.95	242
OPS02190	CPS MARINE .90 RC W/#592 PIPE	365.00	319.95	242
OPS02421	CPS 3.5CC RC CAR ENGINE	121.00	97.95	242
CPS05160	CPS .60 RC BIG RED W/#692 PIPE	198.00	158.95	242
CPS05161	CPS .60 RC URSUS W/PERRY CARB	142.00	114.95	242
OPS05162	CPS .65 RC W/#678 PIPE	246.00	199.95	242
CPS16C20	CPS #392 MUFFLED PIPE - 3.5CC	24.75	23.50	242
CPS16C40	CPS #492 MUFFLED PIPE - .40	27.75	26.35	242
CPS16C60	CPS #692 MUFFLED PIPE - .60	29.00	27.50	242
OPS16120	CPS #328 NITRC PIPE - 3.5CC	19.50	18.50	242
CPS16140	CPS #428 NITRC PIPE - .40	20.50	19.50	242
CPS16160	CPS #628 NITRC PIPE - .60	22.90	21.75	242
CPS16291	CPS #091 MUFFLER FOR URSUS .60	16.60	15.75	242



## O. S. MAX

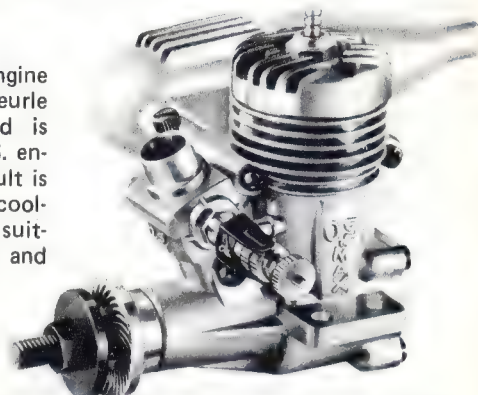
SEE PAGE 245 FOR ALL O.S. MAX PRICES

O.S. Max has an excellent reputation for producing high quality, powerful and long lasting engines. These engines are manufactured to standards of skilled craftsmanship that have been developed through 40 years of O.S. engine production history. Modern precision machinery and carefully selected top quality materials are employed to ensure consistent performance and long life.

O.S. Max engines are available in sizes ranging from .10 to 1.2 cubic inches. Sizes .40 and up come with ball bearings and many come with mufflers as standard equipment. See page 329 for replacement mufflers.

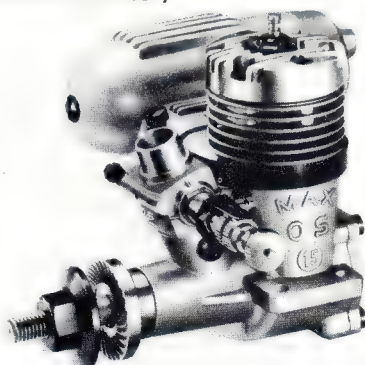
### .10 FSR RC (comes with muffler)

The Max .10 FSR engine incorporates a Schneurle scavenging system and is the first small size O.S. engine to do so. The result is a high performance, cool-running unit that is suitable for both beginner and expert.



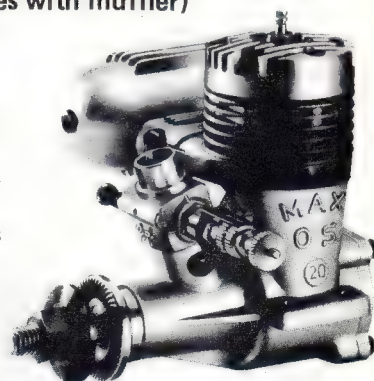
### .15 RC (comes with muffler)

The Max .15 engine has been designed and produced for small size RC models. Especially good idling is obtained from this engine despite its lively performance. Selected high quality materials and sturdy construction ensure longer life and trouble free operation.



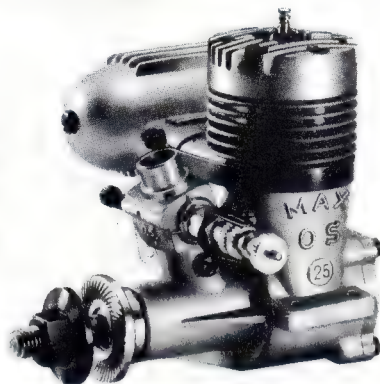
### .20 RC (comes with muffler)

The Max .20 engine has been designed specially for medium size sport flying models. It is notable for easy handling, excellent throttling, characteristics and moderate weight.



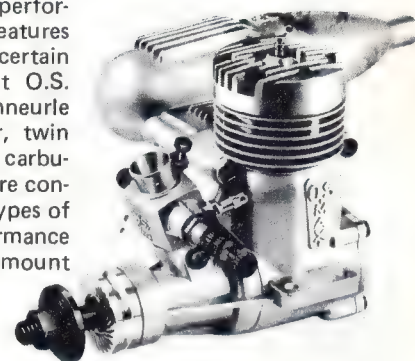
### .25 RC (comes with muffler)

Like the .20, the Max .25 works great in medium size sport flying models and has excellent throttle response. It has an R.P.M. range from 2,300 to 15,000.



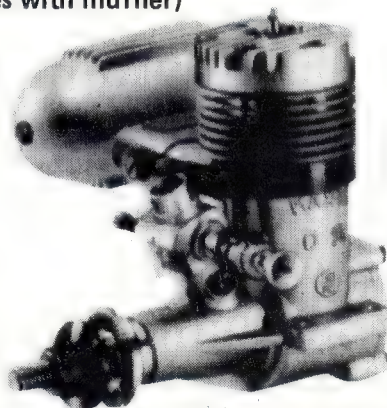
### .25 FSR RC SCHNEURLE (comes with muffler)

The Max .25 FSR is a high performance engine that has features previously found only in certain of the larger displacement O.S. engines. It incorporates Schneurle scavenging for high power, twin ball bearings and the new carburetor with automatic mixture control. It is intended for all types of RC models where performance and durability are of paramount importance.



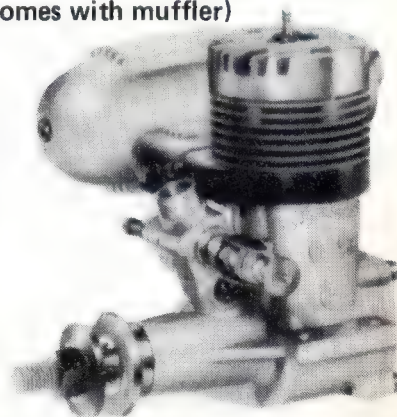
### .30 RC (comes with muffler)

The .30 is a bronze bushed engine with a lapped piston. For sport flying it has plenty of power, yet it is very economical on fuel. It comes with a muffler and features long life and excellent idling characteristics.



### .35 RC (comes with muffler)

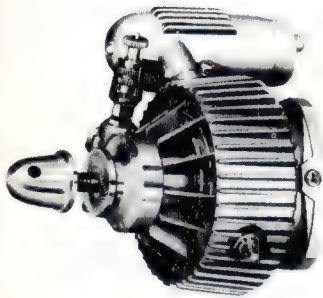
The .35 RC engine is one of the most popular in their entire line. Mainly because it has the power of most other .40 size engines, but its price is much less. It's a long lasting engine you can count on for hundreds and hundreds of flights.





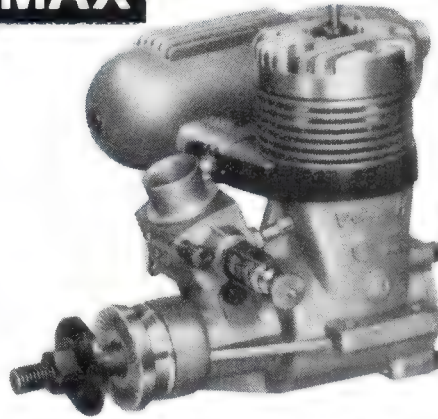
## O. S. MAX

### .30 RC ROTARY WANKEL (comes with muffler)



This Wankel engine is not only a remarkable novelty and a fine collectors item but a very practical engine for use in radio control model airplanes. The engine operates off of a rotary piston which is a triangular rotor with spring loaded vanes at the tips of the rotor lobe to insure a good seal. This rotary piston follows a planetary path within its housing to drive the prop shaft. This all adds up to an engine which is almost vibration-free. You must see one of these fine engines to appreciate it. This engine is of the highest quality and comes complete with glow plug and muffler.

### .40 RC (with muffler)

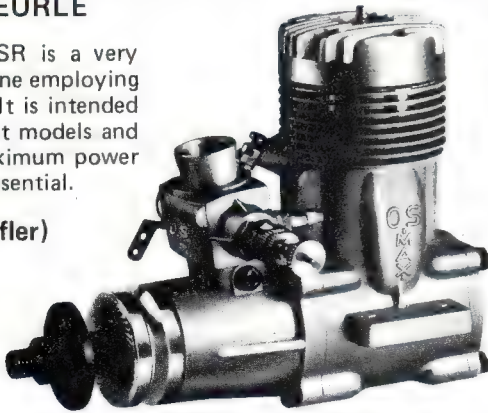


The O.S. Max .40 RC is one of the most popular engines among sport flyers. Its high power output is equal to that of many .45 to .50 cu. in. RC engines. It features ball bearings and a muffler. It is well known for its consistent performance and long life.

### .40 FSR RC SCHNEURLE

The O.S. Max .40 FSR is a very high performance engine employing schneurle scavenging. It is intended for RC pattern contest models and helicopters where maximum power and dependability is essential.

(comes with muffler)

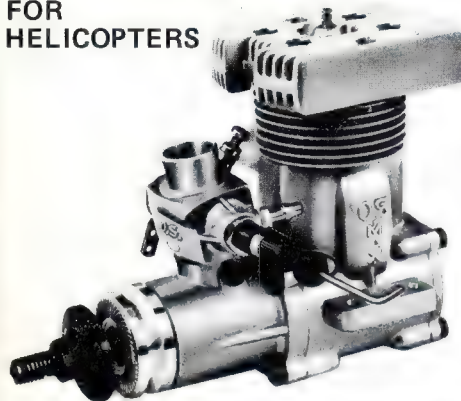


### .45 FSR RC SCHNEURLE (comes with muffler)



The O.S. .45 FSR, like the .40 FSR, is a very high performance engine. This engine has been successfully used where normally a .60 size engine would be required for power. The mounting dimensions of this engine are interchangeable with the .40 FSR.

### .45 FSR-H SCHNEURLE FOR HELICOPTERS



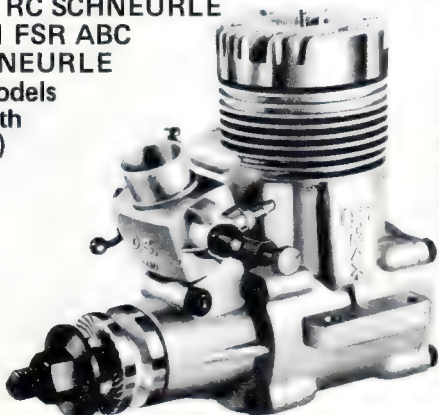
The Max .45 FSR-H is a high performance engine that has been developed expressly for medium sized RC helicopters. It employs a schneurle scavenged cylinder and a heat sink type head is fitted in order to provide the extra cooling fin area desirable for helicopter installations. The engine is equipped with a carb designed to give good throttle response over the speed range required for helicopter flight.

### .50 FSR RC SCHNEURLE (comes with muffler)



Like the .40 and .45 FSR, this .50 FSR RC engine is schneurle ported and ball bearing for great performance. When you need a high quality engine with the power of most .60's this is the engine for you!

### .61 FSR RC SCHNEURLE AND .61 FSR ABC RC SCHNEURLE (both models come with mufflers)



The O.S. Max .61 FSR RC is the latest model in the Max .60 series. This engine is also available in the ABC type. They were designed for FAI type contest models or anywhere all-out power is required. These engines feature schneurle porting, specially plated cylinder liner and a 17 mm crankshaft of heavy duty alloy steel in order to provide extra power and durability. They also come with the O.S. type 7D carburetor, which is specially designed to give a good throttle response.

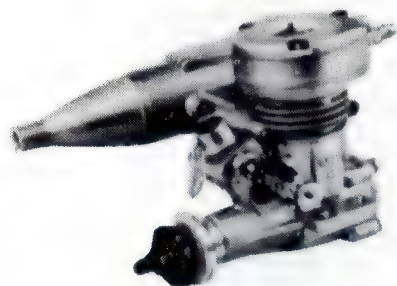
The .61 FSR RC with muffler is also made with the Perry Pressurized Pump and Pump Carb.

SEE PAGE 245 FOR O.S. MAX PRICES.



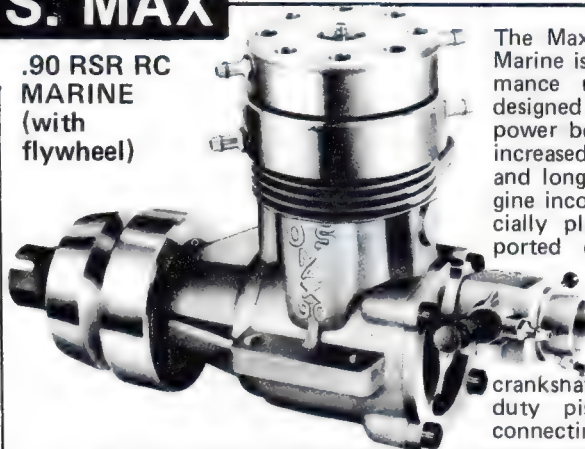
## O. S. MAX

### .10 FSR RC MARINE (comes with muffler)



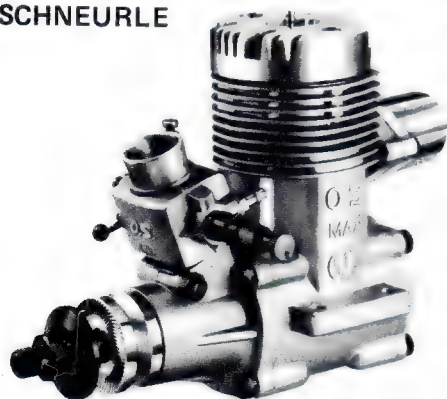
This .10 FSR Marine engine is schneurle ported and quite powerful for its size. A water-cooled head is supplied with the engine. The flywheel is not included.

### .90 RSR RC MARINE (with flywheel)



The Max .90 RSR RC Marine is a high performance marine engine designed for 15 cc class power boat racing. For increased performance and longer life, this engine incorporates a specially plated schneurle ported cylinder liner, steel rear disc valve, flywheel directly fixed to the crankshaft and heavy duty piston pin and connecting rod.

### .61 VF RC ABC REAR EXHAUST SCHNEURLE



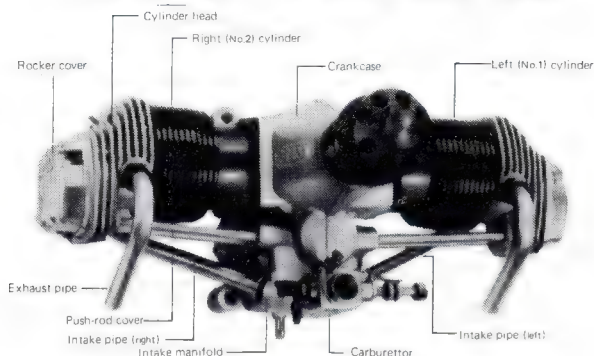
The O.S. Max .61 VF is a real screamer designed expressly for pattern contest models. It features schneurle scavenging and a rear exhaust port to facilitate the installation of a tuned pipe system, especially where the latter is to be built into the fuselage. It also features specially developed ABC type piston/cylinder construction and a 17 mm crankshaft for extra power and durability.

### .90 FSR RC SCHNEURLE (comes with muffler)



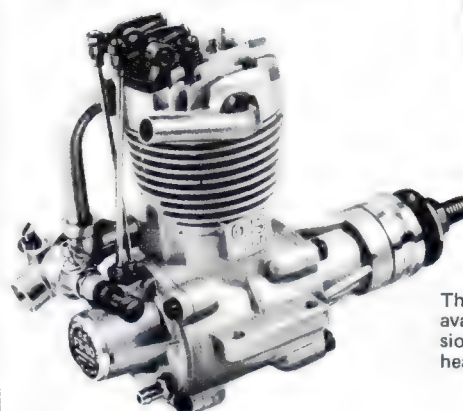
The O.S. Max .90 FSR engine is the largest model in the high performance O.S. schneurle series and has been designed for large RC models. It is ideal for the smaller 1/4 scale models. This engine is manufactured by skilled craftsmen to strict tolerances using modern precision machinery and carefully selected materials to ensure consistent performance and long life.

### FT-120 "GEMINI" 1.2 CUBIC INCH TWIN



The O.S. FT-120 "Gemini" is a horizontally-opposed twin-cylinder overhead-valve fourstroke-cycle engine of 20 cc (1.2 cu. in.) displacement. As with all O.S. designs, a long period of technical development and prototype testing preceded its introduction to the market and we are confident that this is an engine that you will be proud to own and operate. Scale model enthusiasts, in particular, will be pleased with its resemblance to the typical full-sized horizontally-opposed light-aircraft engines widely in use and also with its quieter, more realistic sound.

### FS .60 RC FOUR CYCLE



#### GLO PLUGS

Special plugs for Wankel and .60 4 cycle.

The O.S. Max FS 60 is also available in a marine version with a water-cooled head and flywheel.

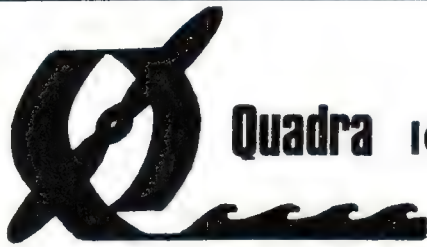
The O.S. FS-60 is an overhead-valve, four-stroke cycle, air-cooled engine for model use and runs on a different principle from that of existing model (two-stroke) engines. Because of its quieter and lower-pitched exhaust sound, no special silencer is needed. Scale enthusiasts, in particular, will be pleased to find that it gives a more "scale" sound.

CSM01015	CS MAX .15 RC W/MUFFLER	45.95	36.75	243
CSM01020	CS MAX .20 RC W/MUFFLER	46.95	37.55	243
OSM01025	CS MAX .25 RC ENGINE W/MUFFLER	49.95	39.95	243
CSM01030	CS MAX .30 RC ENGINE W/MUFFLER	51.95	41.55	243
CSM01035	CS MAX .35 RC ENGINE W/MUFFLER	60.00	47.95	243
CSM01140	CS MAX .40 RC ENGINE W/MUFFLER	84.95	67.95	244
OSM01210	CS MAX .10 FSR RC W/MUFFLER	43.95	34.95	243
CSM01225	CS MAX .25 FSR RC W/MUFFLER	67.95	54.35	243
CSM01240	CS MAX .40 FSR RC W/MUFFLER	99.95	79.95	244
OSM01245	CS MAX .45 FSR-H RC	115.95	92.75	244
OSM02510	CS MAX MARINE .10 FSR RC W/MUF	52.95	42.35	245
OSM02660	CS MAX MARINE FS60 RC 4 CYCLE	259.95	199.95	245

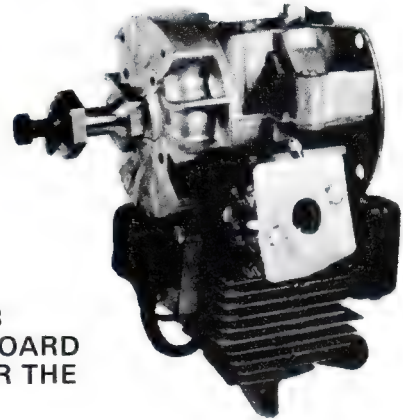
CSM02690	CS MAX MARINE .90 RSR RC	299.00	229.95	245
OSM04130	CS MAX .30 RC WANKEL W/MUFFLER	124.95	105.95	244
OSM05145	CS MAX .45 FSR RC W/MUFFLER	119.95	95.95	244
CSM05150	CS MAX .50 FSR RC W/MUFFLER	119.95	95.95	244
OSM05161	CS MAX .61 FSR RC W/MUFFLER	159.95	127.95	244
OSM05190	CS MAX .90 FSR RC * #744 MUFF.	225.00	169.95	245
OSM05260	CS MAX .61 FSR RC PRESS. W/MUF	190.95	152.75	244
CSM05261	CS MAX .61VF RC ABC RE SCHNRL.	159.95	127.95	245
OSM05262	CS MAX .61 FSR RC -ABC- W/MUFF	175.00	139.95	244
OSM05360	CS MAX FS60 RC 4 CYCLE ENGINE	225.00	179.95	245
OSM06120	CS MAX 1.2 RC 4 CYCLE TWIN	695.00	555.95	245
CSM15030	CS MAX GLO PLUG FOR WANKEL	2.25	2.15	245
CSM15060	CS MAX GLO PLUG FOR 60 4 CYCLE	4.35	4.00	245



## QUADRA



### Quadra IGNITION ENGINE



#### THIS IS IT!

The remarkable engine you've been reading about in all the Model magazines!

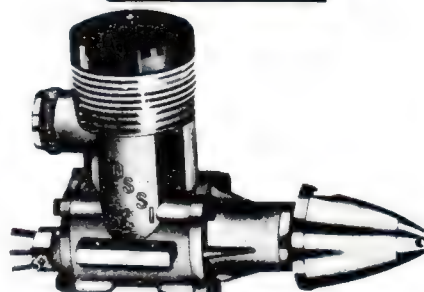
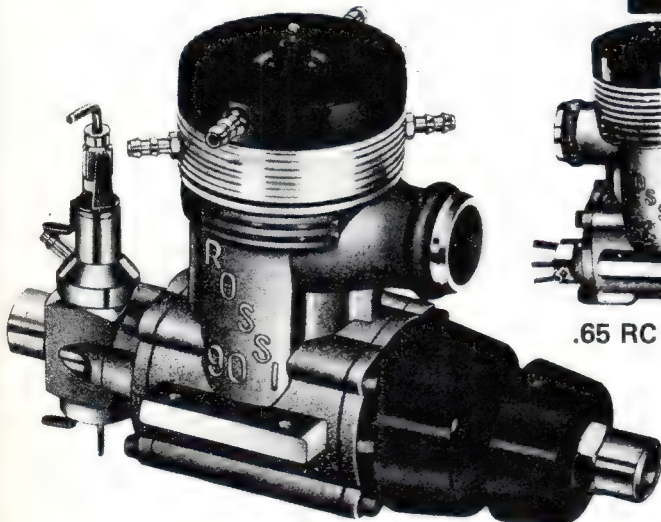
- \* Two actual horsepower, two cu. in., the most suitable engine for large models with its scale-like sound, realistic performance and operating costs of around 20 cents an hour with a fuel mixture of 20-1 gas and oil.
- \* No greasy mess or fuel soaking, and any finish or covering can be used (no need for hot fuel proof dopes).
- \* Props in 16", 17", 18" and 20" now readily available from several manufacturers.
- \* Engine has a chrome liner, roller bearing crankshaft and rod and a life expectancy of better than 200 hours with proper use. Drive adaptors are available for rear drive using standard props.
- \* Comes with muffler, mount, Walbro pump/carb, prop adaptor spool, washer and prop bolt.

SEE PAGE 313  
FOR AN ON-BOARD  
STARTER FOR THE  
QUADRA.

- \* Starts and runs in any position. Electric starter not required but some being marketed especially for this engine (some with radio controlled operation).
- \* Useful RPM range of 7,000 to 12,000, develops 2 actual dyno tested HP at 10,000 RPM, torque curve nearly flat between 8,000 and 10,000 RPM.
- \* Crankcase already tapped for pressure take-off for smoke tank (the hot exhaust readily produces smoke from diesel fuel, etc.)

QUA01200 QUADRA 2 CU IN AIRCRAFT ENGINE 139.95 59.95 246

## ROSSI



.65 RC RV (comes with pipe)

.90 RC RV MARINE (comes with pipe)

Rossi engines are very powerful, extremely dependable and excellent quality. All the engines listed below come with tuned pipes. The two marine engines come with water-cooled heads and flywheels as standard equipment. The .90 RC Marine puts out an incredible 5.6 hp at 21,000 RPM's on 70% nitro. The .65 puts out about 3.5 hp. No other engines have been able to match Rossi's amazing performance.

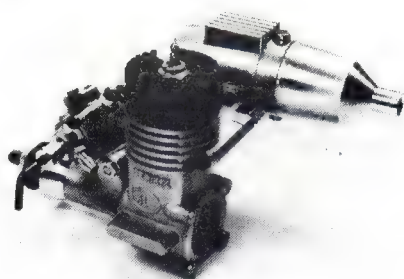
ROS02661	ROSSI MARINE .61 RV RC W/PIPE	297.00	229.95	246
RCS02690	RCS01 MARINE .90 RV RC W/PIPE	379.00	279.95	246
ROS06665	RCS01 .65 RV RC W/PIPE	261.00	208.95	246
RCS06690	ROSSI .90 RV RC W/PIPE	379.00	279.95	246



## SUPERTIGRE

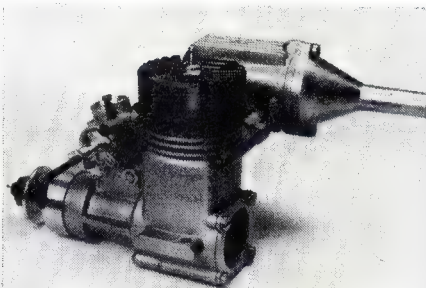
SEE PAGE 329 FOR MUFFLERS.

### X .11 RC SCHNEURLE WITH MUFFLER



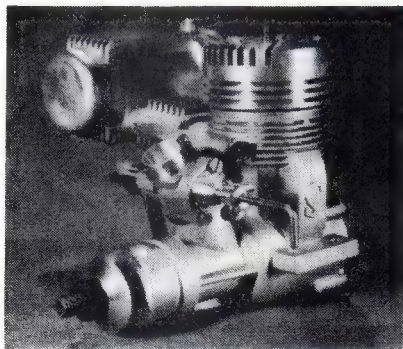
The X-11 is a delightful small engine with a throttle that features cam action on the throttle drum which leans out the mixture at low speed. Lapped Schneurle piston and cylinder assemblies. Blue anodized aluminum head. Timing gives both good power and easy starting. An excellent engine for either beginner or expert.

### X .25 RC SCHNEURLE WITH MUFFLER



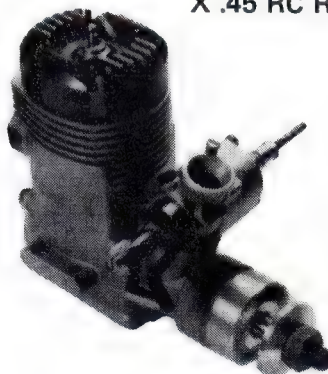
This Supertigre X 25 is schneurle scavenged and ball bearing to give it great performance and durability. This is a ringed engine that is heftily constructed. Few engines if any in its size range can match its power.

### S .40 RC SCHNEURLE WITH MUFFLER



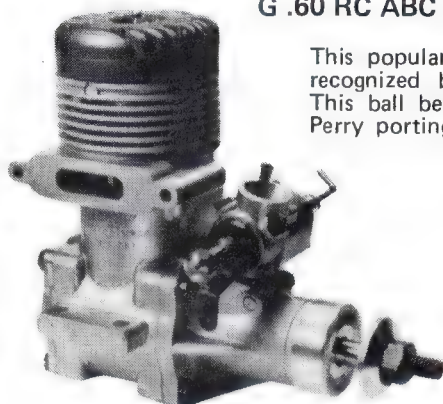
The "S" series is a twin ball bearing engine with a MAG V carb, loc cone retained drive washer, bar stock rod, aluminum piston with ring and a massive bar stock squish band head. The head is constructed so it retains heat when idled down in order to aid ignition. The piston is of a special cast aluminum alloy to keep the piston growth to a minimum. The machine bar stock rod is of special aluminum alloy. This engine was tested using 5% nitro fuel with no muffler. 9-4 prop - 18,100. 9-6 1/2 prop - 15,800. 10-6 prop - 14,000. From a design standpoint, this engine is the big brother of the X-25.

### X .45 RC REAR EXHAUST SCHNEURLE

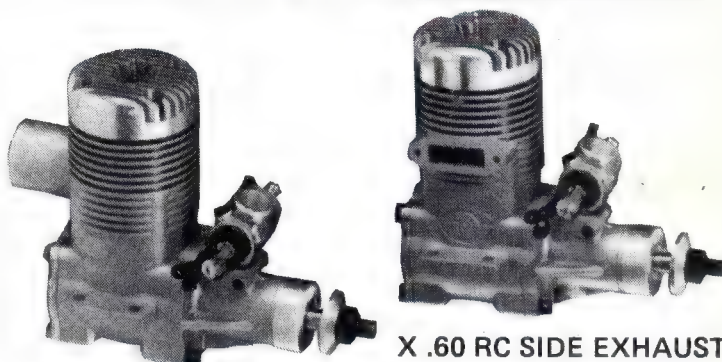


The X .45 features rear exhaust and schneurle porting for great performance. A tuned pipe to fit is available but not included with the engine. It also features an ABC sleeve and ball bearings. As with other Supertigre engines, it is very high quality and long lasting.

### G .60 RC ABC BLUEHEAD (Ringed)



This popular .60 size engine is easily recognized by its bright blue head. This ball bearing engine features ST-Perry porting and is renowned for its high power output equal to many schneurle ported .60's. It's also known for its extreme durability and smooth performance.



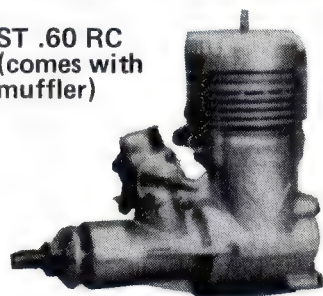
X .60 RC SIDE EXHAUST

### X .60 RC REAR EXHAUST

These new Supertigre schneurle engines are hard to beat when it comes to all-out power. They are well machined and very durable. Both versions use cast aluminum pistons and are ball bearing. They are becoming quite popular and competitive in pattern contests. Tuned pipes are available to fit each engine.

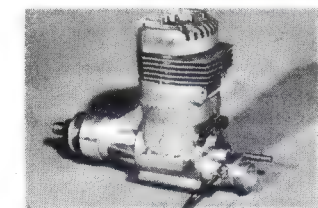
Available, but not pictured, is the popular Supertigre .46 RC with muffler.

### ST .60 RC (comes with muffler)



This is an economical sport 60 size engine featuring ball bearings and noted for its easy handling, reliable idle and long life.

### X .40 RC SPEED ABC



This powerhouse is a favorite among Formula 1 pylon racers. It has set and broken numerous records. This rear intake engine features schneurle porting with ABC, aluminum piston, bronze sleeve chromed for long life.

STG00142	SUPERTIGRE	X 40 RV SPEED ABC	104.95	83.95	247
STG01061	SUPERTIGRE	ST .60 RC BB W/MUFF	89.95	71.95	247
STG01147	SUPERTIGRE	.46 RC W/MUFFLER	84.95	67.95	247
STG01160	SUPERTIGRE	G60 RC ABC BLUEHEAD	109.95	87.95	247
STG05011	SUPERTIGRE	X .11 RC SCHL W/MUF	45.95	36.75	247
STG05025	SUPERTIGRE	X .25 RC SCHL W/MUF	74.95	59.95	247
STG05040	SUPERTIGRE	S .40 RC SCHL W/MUF	99.95	79.95	247
STG05046	SUPERTIGRE	X .45 RC RE SCHNRLE	104.95	83.95	247
STG05060	SUPERTIGRE	X .60 SL RC SE SCHL	134.95	107.95	247
STG05160	SUPERTIGRE	X .60 SP RC RE SCHL	134.95	107.95	247
STG16000	STG	#1291 TUNED PIPE - X45	33.05	27.95	329
STG16002	STG	#1161 TUNED PIPE - X60 RE	39.75	33.75	329
STG16004	STG	#0730 TUNED PIPE - X60 SE	39.75	33.75	329
STG16023	SUPERTIGRE	MUFFLER FOR 15-25	17.25	14.65	329
STG16035	SUPERTIGRE	MUFFLER FOR 35-46	17.25	14.65	329
STG16050	SUPERTIGRE	MUFFLER FOR ST6088	17.25	14.65	329
STG16060	SUPERTIGRE	MUFFLER G60-71, X60SE	17.25	14.65	329



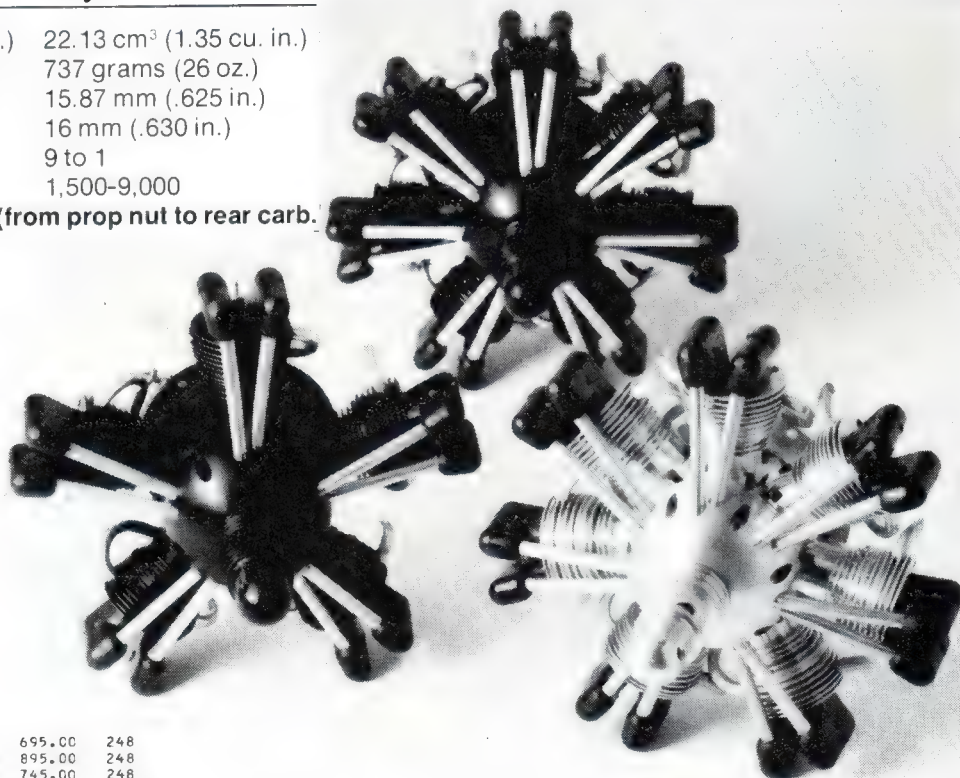
## TECHNOPOWER II

### Precision 5 and 7 cylinder 4 Cycle Engines

	5 cyl.	7 cyl.
Total displacement	15.73 cm <sup>3</sup> (.96 cu. in.)	22.13 cm <sup>3</sup> (1.35 cu. in.)
Weight	623 grams (22 oz.)	737 grams (26 oz.)
Bore	15.87 mm (.625 in.)	15.87 mm (.625 in.)
Stroke	16 mm (.630 in.)	16 mm (.630 in.)
Compression ratio	9 to 1	9 to 1
RPM	1,500-9,000	1,500-9,000
Length	12.7 cm (5 in.)	(from prop nut to rear carb.)
Diameter	15 cm (6 in.)	
HP at 8500 RPM	3/4	

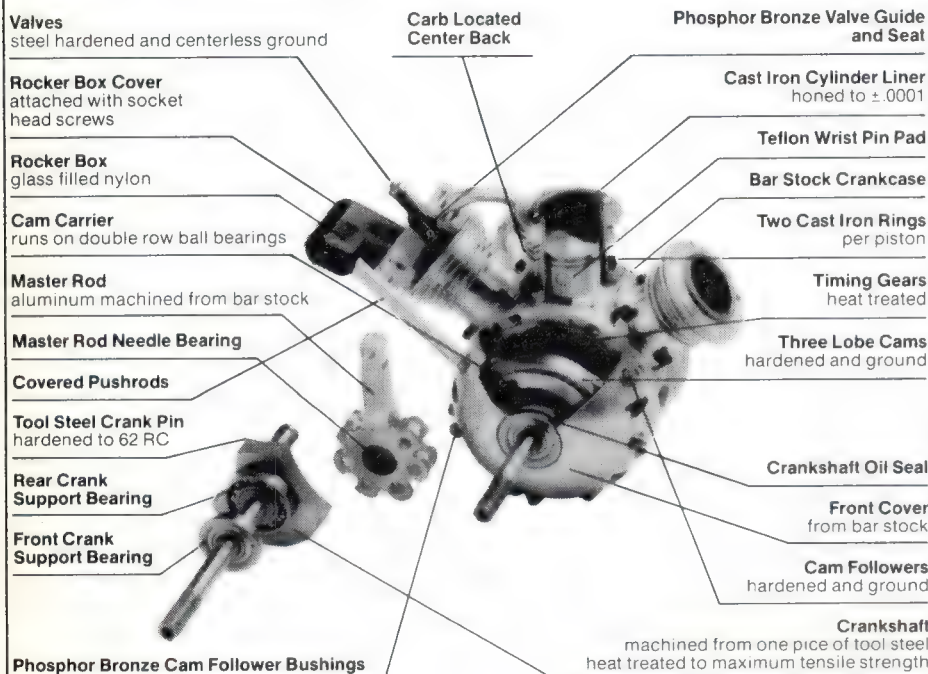
**The world's only production scale aircraft power plant.**

- Pushrod operated overhead valves
- Glow ignition
- Firewall mounting



TEC01050	TECHNOPOWER 5 CYLINDER RADIAL	695.00	695.00	248
TEC01070	TECHNOPOWER 7 CYLINDER RADIAL	895.00	895.00	248
TEC01150	TECHNOPOWER ANODIZED 5 CYL.	745.00	745.00	248
TEC01170	TECHNOPOWER ANODIZED 7 CYL.	945.00	945.00	248

**The world's only production, precision radial 5 & 7 cylinder four cycle engine. Quiet-smooth-high torque power for your scale and 1/4 scale ships.**



These engines are fully operational, multicylinder, 4 stroke, O.H.V. glow engines. The 5 cyl. has a total capacity of 13.85cc., and the 7 cyl., 10.39cc. The engines are comprised of well over 300 components each, and are individually hand-built, high precision units.

They start readily, have a smooth throttle response and do not require mufflers because of their quiet running characteristics.

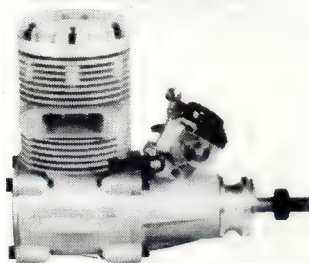
The "Techno" radial, originally based on the Armstrong Siddely Genet engine of the 1930's era, has taken over 7 years of design and development work. The result is a unique, aesthetic, highly practical scale flying engine of great engineering interest.

**TECHNOPOWER II** has spared no effort to make this engine the finest device of its kind in the world. This is not only a collector's item, but a flying machine that looks and sounds scale.



## WEBRA

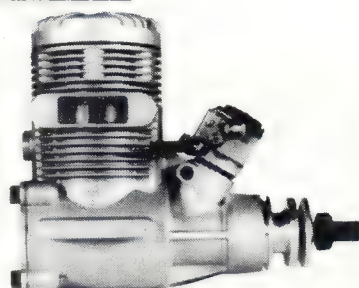
### THE HOTTEST .61 ENGINE EVER!



### .61 RC (SPEED) SCHNEURLE NO. 1024 RC

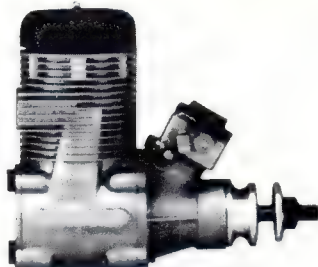
Competition flyers from around the world trust this engine with their models. Of course, it is schneurle ported and extremely durable due to its over-sized 17 mm crankshaft. The Dynamix slide-valve carburetor is standard. You can't go wrong with this precision engine long known for its superb performance.

### .91 RC (SPEED) SCHNEURLE NO. 1037 RC



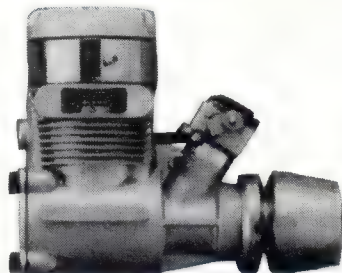
This powerhouse of an engine is for those who favor large and 1/4 scale models, with its 15cc displacement and speed of around 13,000 RPM's with 13" to 14" prop, the .91 speed provides extremely high power output. As all the Speed models, it is also Schneurle ported and uses a reinforced crankshaft as well as the Dynamix carburetor as standard equipment.

### .61 RC (SPEED) REAR EXHAUST SCHNEURLE NO. 1030 RC



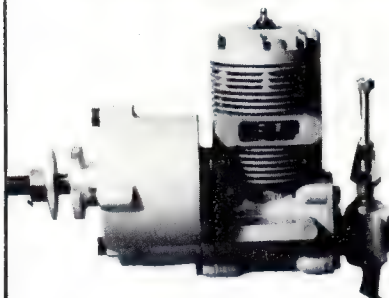
This engine is like the .61 Speed except that it has rear exhaust that permits a tuned pipe to be installed inside the fuselage. It features schneurle porting, Dykes ring to reduce friction and improve sealing, 17 mm crankshaft, Dynamix carburetor, ball-bearings and a thick crankcase. This is the ultimate engine for the serious pattern flyer and will leave the competition miles behind.

### .91 RC (SPEED) MARINE NO. 1039 RCW



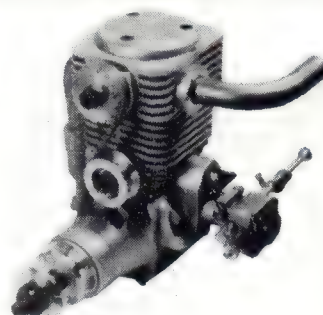
Characteristics and design are identical to the .91 Speed, however this water-cooled version is equipped with flywheel and water-cooled head. It also comes with the Dynamix slide-valve carb. This engine is a real competitor when dropped into a .60 size boat or the new .90 size which is gaining popularity.

### .61 RC (SPEED) WITH GEAR REDUCTION NO. 1026 RCG



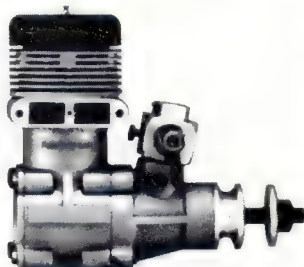
The ultimate high torque .61—a rear intake schneurle engine complete with its own attached gear box which reduces output to a ratio of 1:1.66. Unique combination of one steel and one plastic gear for lubrication free running. Encased gear box offers low noise level. Box can be attached in 4 different 90 degree positions for excellent scale appearance.

### .91 RC (SPEED) T4 4 CYCLE NO. 1040 RC



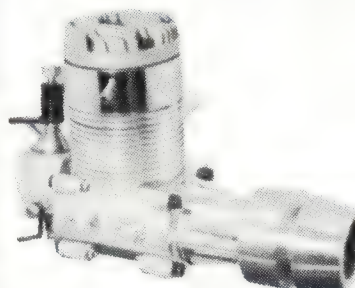
This giant develops 1.5 hp at 9400 RPM's and swings a 14 x 6 prop with ease. It features a rotary drum intake and exhaust system. Special slots in the drum valve eliminate the need to constantly adjust timing as with conventional 4-cycle engines. Great for 1/4 scale aircraft.

### .61 RC BLACKHEAD No. 1020 RC



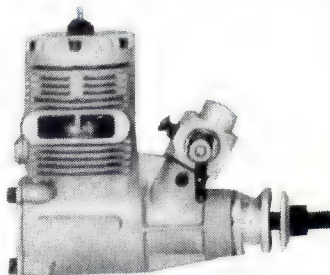
Traditionally the most popular Webra engine, it is now designed for even better fuel draw and with special crankshaft balancing. The excellent characteristics of this engine are reliable idle and smooth speed transition performance. The crankshaft is supported by ball bearings, the connecting rod has needle bearings.

### .61 RC REAR VALVE (SPEED) MARINE NO. 1026 WR



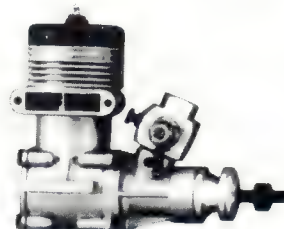
This screaming schneurle marine comes equipped with flywheel and water-cooling head. The special feature is the 11 mm Webra TN-MC carburetor and spray bar adjustment, when used with a properly adjusted tuned pipe (1100/7), this engine is capable of speeds as high as 19,000 RPM's. This is very competitive.

### .40 RC SCHNEURLE (SPEED) No. 1034 RC



An engine for the demanding modeler expecting reliability and performance. It features Schneurle porting and a L-shaped piston ring which reduces friction and improves sealing. A one-piece crankcase is used to keep the total weight down. Undoubtedly, one of the hottest .40's ever made.

### .40 RC BLACKHEAD NO. 1022 RC



This sturdy and reliable .40 engine is very popular because of its smooth transition performance and easy handling. It is especially suitable for multi-engine and training models in general. Another excellent characteristic of this engine is its relatively low fuel consumption.

SEE PAGE 326 FOR WEBRA TUNED PIPES AND MUFFLERS.

WEB01140	WEBRA #1022RC .40 RC BLACKHEAD	118.00	77.95	249
WEB01161	WEBRA #1020RC .61 RC BLACKHEAD	126.00	82.95	249
WEB05140	WEBRA #1034RC .40 RC FR SCHNRL	145.00	94.95	249
WEB05161	WEBRA #1024RC .61 RC FR SCHNRL	203.00	132.95	249
WEB05162	WEBRA #1030RC .61 RC RE SCHNRL	210.00	137.95	249
WEB05191	WEBRA #1037RC .91 RC FR SCHNRL	248.00	159.95	249
WEB06661	WEBRA #1026RCG .61 W/GEAR BCX	270.00	179.95	249

WFB06691	WEBRA #1040RC .91 RC 4 CYCLE	410.00	264.95	249
WEB09000	WEBRA #1100/7 TUNED PIPE-61SE	57.80	51.95	326
WEB09006	WEBRA #1100/6G MUFFLER-1024RC	25.90	23.95	326
WEB09017	WEBRA #1100/17 TUNED PIPE-91	72.50	63.95	326
WEB09061	WEBRA MARINE #1026WR 61 RV SCH	284.80	161.50	249
WEB09091	WEBRA MARINE #1039RCW .91 SCHL	213.60	177.95	249



## Accessories

We have listed as "Accessories" all of the various little items (and some large items) that you will need in completing your model. These items include the clevises, pushrods, cables, collars, grommets, etc., etc., and so on. In order for you to get an idea of what is available, you should peruse this section with great care. Learn the different products you know you'll be needing, and know the manufacturers of those products.

Within this section, the choice of pushrods is the most puzzling subject, and we get a lot of calls on what should be used. The simplest answer is: "Whatever you'd like." This, though is hardly a fitting answer, especially if you know next to nothing about what they are used for, let alone what they actually are.

Sullivan and Su-pr-line make nylon pushrods that can be used for any purpose in a model. These are both flexible, yet they can withstand the loads imposed upon them by the larger designs. They are called Gold-n-rods and Nyrods, respectively.

Dubro makes a wire pushrod that is held within a nylon tube. This offers the superior strength of steel, while giving up a little of the flexibility of the nylon pushrod. There is no weight penalty. As with the nylon pushrods, these "Kwik-Rods" need to be supported at three or four places along their length so that they can withstand compression loads.

Flex cables are similar to the nylon or steel pushrods, but they are much more flexible to allow them to snake around various obstacles, such as fuel tanks, bulkheads, and servos, to name a few. While commonly used for throttle actuation, they can also be used for nose gear steering control, control surfaces, and any other uses you can think of. Cables are made by Dubro and Su-Pr-Line.

We also carry pre-made aluminum landing gears. These replace the ones found on planes such as the Ugly Stick and Bridi Trainer series, to name a few. They are made by Hallco and Bridi. To go with these, use the Banner axles . . . they make wheel installation so easy!

A line new to Tower Hobbies is the Proctor line of scale fittings for those antique airplanes that had flying wires to support their wings, tails, and other stuff. You'll find scale turnbuckles, anchors, and pulleys. If you've wanted a really *complete* scale model of that antique or WW I plane, then these items are just the ticket. With these, you can actually make the control hook-ups that work just like the real thing . . . cables and all!

Check out the hinge slotters brought out by both Dubro and Goldberg. While different, they make the job of cutting hinge slots so much easier, that you'll wonder how you made do without them in the past. Also the ball-links by

Dubro add a new dimension to control hook-ups . . . you no longer have to make sure that the pushrod comes in at exactly the right angle to insure freedom of movement in the controls.

## Pushrods

Let's talk a little about pushrods. Without the pushrod, your plane would be lifeless. The pushrods transfer power from the servo to the control surface. No matter what material they are made of, they do the same job.

The most important consideration is that there be no "slop" at all in your control system. The control surface must not move unless the servo moves. Excess movement is usually caused by pushrods that are less than rigid.

If you are using solid pushrods, such as the Su-Pr-Line "Prorod," or the Wing Manufacturing pushrods, you can get slop in the linkage when your pushrod is not absolutely straight. Any bends in the linkage can contribute to slop.

In a pushrod system that uses nylon tubing, such as Su-Pr-Line "Nyrods," Sullivan "Gold-N-Rods," or the Dubro "Kwikrod," you must be careful to anchor it correctly, or you'll find out that the system lacks rigidity. You should install this type of pushrod before you close-up the fuselage.

Anchor the pushrod at the point where the rod exits the fuselage. Also glue the pushrod at several places in the middle. Leave the end near the servo compartment unglued, so that you can position the pushrods to match the servos. When you've installed the servos, anchor this end to a piece of wood that you make to fit.

A flexible cable (Dubro #165, Su-Pr-Line "Masterod & Masterod-XF") should be carefully installed. Because a cable has no rigidity of itself, you must make sure that the extra tubing cannot move. This means that you may have to make supports for the cables in places so that it goes where you want it, and will not move.

On very large aircraft, such as the 1/4-scale birds, you must be especially sure that your pushrods are rigid. Not only that, but the long lengths required mean that you may have to give them added support. Even long, solid pushrods will need guides to insure that they do not bow when they are put into compression.

A good book that will show you how to make various pushrod installations is the RCM 'Flight Training Course' (see Book section). The book talks about more pushrod installations than we are able to talk about here.

The main idea to remember, is that your pushrod installation must not allow any excess movement. Excess movement can cause loss of control, and even loss of your model.



## BANNER

### OIL TEMPERED SPRING STEEL AXLE SHAFTS

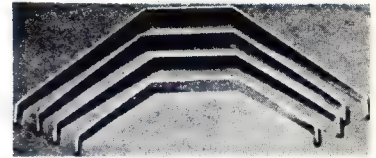
WORKS  
GREAT ON  
GEAR LIKE  
BRIDI AND  
HALLCO!



For sheet metal landing gear in  
5 sizes—3/32, 1/8, & 5/32, 5/32  
extra long; 3/16 extra long.

BAN26180	BANNER AXLE SHAFTS 1/8 IN 2	1.85	1.65	369
BAN26332	BANNER AXLE SHAFTS 3/32 IN 2	1.70	1.55	369
BAN26532	BANNER AXLE SHAFTS 5/32 IN 2	2.00	1.80	369
BAN26632	BANNER AXLE 5/32 EXTRA-LONG 2	2.50	2.35	369
BAN26650	BANNER AXLE 3/16 EXTRA-LONG 2	2.75	2.50	369

## BRIDI



Hardened Dural Landing Gear  
L-1 FOR .19 SIZE PLANES  
L-2 FOR .19-.40 SIZE PLANES  
L-3 FOR .40-.60 SIZE PLANES  
L-4 FOR .60 SIZE OR FLOATS



BR126C01	BCE L-1 LANDING GEAR SMALL 9IN	3.55	3.25	251
BR126C02	BCE L-2 LANDING GEAR MED. 11IN	3.90	3.60	251
BR126C03	BCE L-3 LANDING GEAR LGE. 12IN	4.25	3.90	251
BR126C04	BCE L-4 LANDING GEAR X-LG 14IN	4.65	4.30	251

## EDSON

### EDSON ADJUSTABLE NOSE GEAR

Cat. No. NG-55

Edson Adjustable Nose Gear is designed to receive the Edson M-50 Motor Mount. This combination allows a choice of 12 different positions to mount your engine without disturbing your nose gear. Complete instructions supplied with kit.

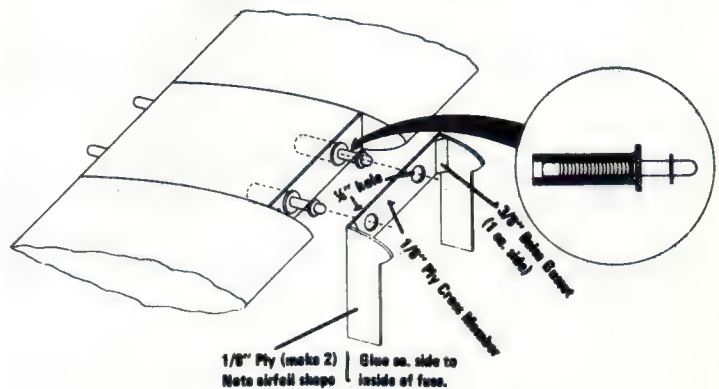
SEE PAGE 321 FOR EDSON MOTOR MOUNT.



EDS26055	EDSON NG-55 ADJ. NOSE GEAR	3.95	3.75	251
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## GEMINI

### JONES SNAP ON WING MOUNTS NO SCREWEY BOLTS UGLY RUBBER BANDS

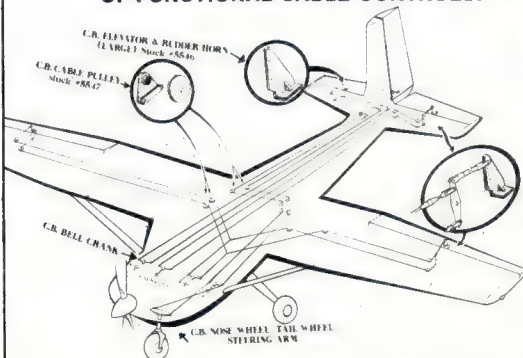


FOR LOW WING INSTALLATION, TURN DRAWING UP SIDE DOWN

GE#2000	GEMINI SNAP-CN WING MOUNTS-2	8.95	7.95	251
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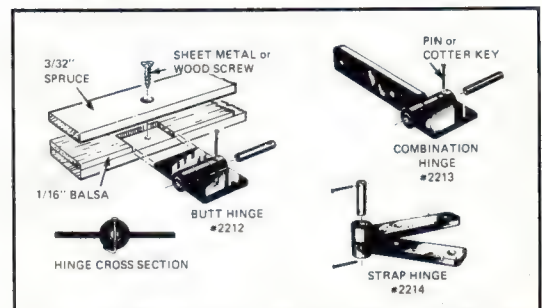
## C.B. ASSOCIATES

### NEW! CONTROL FITTINGS FOR GIANT MODELS NOW YOU CAN HAVE THE SAFETY AND CONVENIENCE OF FUNCTIONAL CABLE CONTROLS!



Why risk it? Monster models require special control linkages. Pushrods won't do... only the full-size practice of pulleys, cables and double horns will guarantee tight, positive control response. The new C.B. system removes servo loads on even the largest models. Made of glass-filled nylon and precision machined metal.

SAFE! SIMPLE! EFFICIENT!  
Large control horn  
(single-sided)  
Cable pulley (set of four)  
Straight bellcranks  
Steering arm (nose/tail wheel)



CBA24212	CB ASSOC. BUTT HINGE-4	#2212	3.95	3.65	251
CBA24213	CB COMBINATION HINGE-4	#2213	3.95	3.65	251
CBA24214	CB ASSOC. STRAP HINGE-4	#2214	3.25	3.00	251
CBA24545	CB DOUBLE RUCCER HORN-2	#5545	.95	.90	251
CBA24546	CB ELEVATOR & RUD. HORN-2	#5546	1.05	1.00	251
CBA24547	CB ASSOC. CABLE PULLEY-4	#5547	4.70	4.30	251
CBA24548	CB STEERING ARM ASSEMBLY	#5548	1.35	1.30	251
CBA24549	CB BELL CRANK ASSEMBLY	#5549	1.95	1.85	251
CBA24550	CB WING STRUT FITTING-4	#5550	3.95	3.65	251
CBA27264	CB 2 AL. WING BOLTS 1	#5264	1.60	1.50	251
CBA27265	CB 2 AL. WING BOLTS 2.5	#5265	1.75	1.65	251



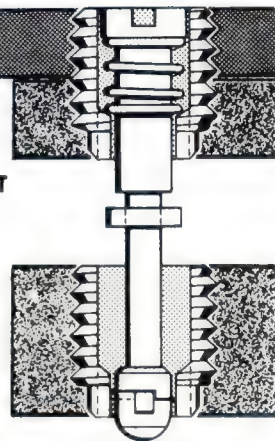
SEE PAGE 259 FOR RETAIL PRICES, TOWER PRICES, AND TOWER STOCK NUMBERS.

## 1/4-TURN LATCH

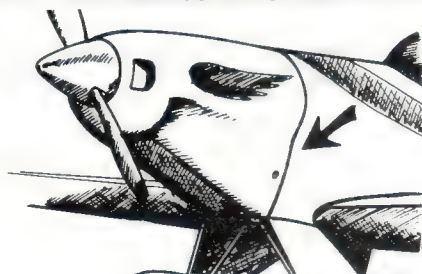
THE PERFECT WAY TO LATCH YOUR HATCH!  
(OR YOUR COWL, CANOPY, INSPECTION COVER, ETC.)



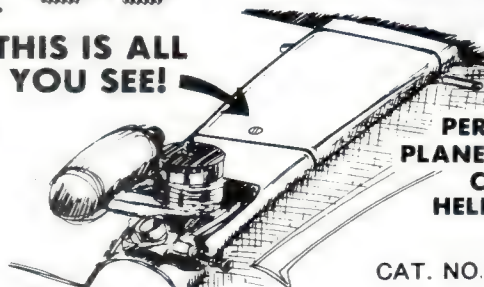
- SIMPLE TO LINE UP AND INSTALL - A PERFECT ALIGNMENT EVERY TIME.
- ← THIS IS ALL YOU SEE! THE HEAD FITS FLUSH WITH YOUR SURFACE AND CAN BE PAINTED THE COLOR OF YOUR MODEL. THEY LOOK AND WORK JUST LIKE THE REAL THING!
- THE SPRING-LOADED MECHANISM POSITIVELY LOCKS OR RELEASES WITH A MERE 1/4 TURN OF A SCREWDRIVER.
- ACTUAL SIZE IS ONLY 3/4" X 1/4" - ALL STEEL AND BRASS MACHINED PARTS.



ASSEMBLY REQUIRED.



THIS IS ALL YOU SEE!



PERFECT FOR  
PLANES, BOATS,  
CARS AND  
HELICOPTERS.

CAT. NO. 242

## NEW DU-BRO 1/2A MODEL ACCESSORIES

### MINI-KWIK LINKS

CAT. NO. 229



- SMALL AND STRONG ONLY 3/4" LONG!
- SNAPS SHUT AND LOCKS IN PLACE TO PREVENT ACCIDENTAL OPENING UNDER HEAVY STRESS LOADS
- SELF-THREADING TO FIT 2-56 RODS OR COUPLERS

### 1/2 A CONTROL HORNS

- 3/4" LONG - 4 ADJUSTMENT POSITIONS
- EACH SET CONTAINS 1 RIGHT AND 1 LEFT CONTROL HORN FOR SAFER INSTALLATIONS



ENABLES YOU TO MOUNT A HORN SAFELY ON EITHER SIDE OF ELEVATOR WHILE KEEPING THE MOUNTING HOLES FURTHEST FROM THE EDGE

CAT. NO. 107

### MINI-NY-STEEL PUSHROD ASSEMBLY



- NO-SHRINK, NO-STRETCH, FREE RUNNING PUSHROD ASSEMBLY - PERFECT FOR 1/2 A AIRPLANES. LIGHTWEIGHT, FLEXIBLE AND STRONG
- TRIM SETTINGS ARE NOT AFFECTED BY WEATHER CONDITIONS
- NEW SPRING-THREAD COUPLERS AT BOTH ENDS FOR MICRO TRIM ADJUSTMENTS (SEE OTHER SIDE)

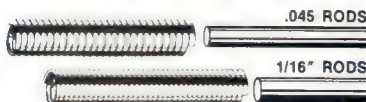
CAT. NO. 113 2 COMPLETE SETS

### MINI-KWIK-LINKS ON 12", 2-56 THREADED RODS

SKIN PACKED 5 PER CARD  
CAT. NO. 230  
BENDABLE AND STRONG

AVAILABLE SEPARATELY  
PACKAGED 18 PER TUBE  
CAT. NO. 229

## DU-BRO SPRING- THREAD COUPLERS



A NEW, EASY WAY FOR YOU TO PUT THREADS ON ANY ROD, WIRE OR CABLE UP TO 1/16" DIAMETER.

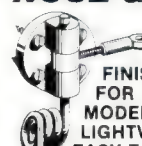
MAKES A SMALL, CLEAN LOOKING SOLDER-ON CONNECTOR FOR ANY DU-BRO SELF THREADING NYLON LINK OR BALL LINK.

CAT. NO. 232 FOR .045 WIRE OR SMALLER.  
CAT. NO. 233 FOR 1/16" WIRE OR SMALLER.

ACTUAL SIZE

NEW!

### 1/2 A STEERABLE NOSE GEAR



THE FINISHING TOUCH FOR YOUR 1/2A MODEL. SMALL, LIGHTWEIGHT AND EASY TO INSTALL, FEATURING AN ADJUSTABLE STEERING ARM AND STRAIGHT 3/32" NOSE GEAR WIRE WHICH CAN BE BENT TO YOUR SPECIFICATIONS.

CAT. NO. 234

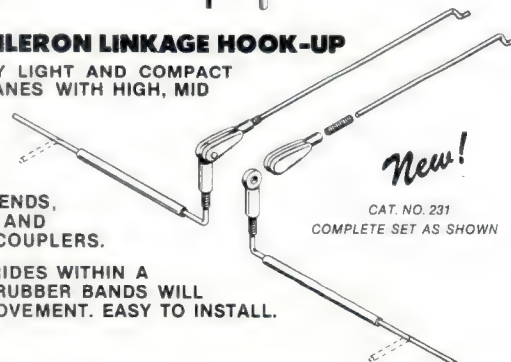
COMPLETE WITH MOUNTING SCREWS

### 1/2A STRIP AILERON LINKAGE HOOK-UP

MADE ESPECIALLY LIGHT AND COMPACT FOR 1/2 A AIRPLANES WITH HIGH, MID OR LOW WINGS.

FEATURES OUR NEW NYLON ROD ENDS, MINI-KWIK-LINKS AND SPRING-THREAD COUPLERS.

AILERON WIRE RIDES WITHIN A BRASS TUBE SO RUBBER BANDS WILL NOT RESTRICT MOVEMENT. EASY TO INSTALL.



New!

CAT. NO. 231  
COMPLETE SET AS SHOWN





## DU-BRO

### KWIK-LINKS

#### THE ORIGINAL DU-BRO KWIK-LINK®

Control yoke assembly for any control linkage. Allows easy removal for on-the-field adjustments. 4" rod and split coupling sleeve. No. 106 . . . . .



• 12" KWIK-LINK Includes 12" Rod and Kwik-Link. No. 108

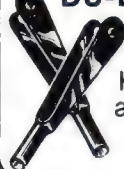
#### NYLON KWIK-LINK®

These "Sure-Lock" Kwik-Links are the same size as our steel Kwik-Links and are made for self-threading No. 122



No. 123 12" rod with nylon Kwik-Link

#### DU-BRO KWIK-LINK®



The tried and true spring steel Kwik-Link. Ideal for any control linkage. 2 each.

No. 109 . . . .

#### NICKEL PLATED SOLDER LINKS

MAKES A STRONG, ATTRACTIVE AND EASY TO SOLDER CONNECTOR FOR SERVO OR HORN. NICKEL PLATED FOR A BRIGHT AND SHINY FINISH — A NICE IMPROVEMENT OVER TIN PLATING WHICH WILL EVENTUALLY OXIDIZE AND CORRODE. PACKAGE INCLUDES 2 SOLDER LINKS AND 2 LINK GUARDS.

No. 112 (2 ea.)



#### MINI-KWIK-LINKS

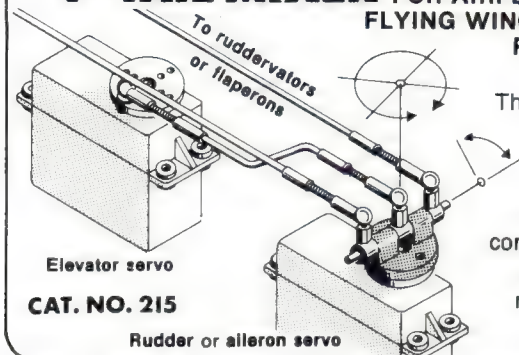
These "SURE-LOCK" mini-links are perfect for 1/2 A airplanes or any throttle hook-up, self-threading nylon. NO. 228



### CONTROL HOOK-UP ACCESSORIES

#### V-TAIL MIXER

FOR AIRPLANES WITH V-TAILS, FLYING WINGS AND TO CONTROL RUDDERVATORS AND FLAPERONS.

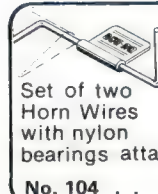


CAT. NO. 215

This ultra-complete mixer kit utilizes ball links throughout for an absolute "no play" linkage hook-up. Light, compact, easy to assemble and adjustable at either mixer or control surface.

#### AILERON HORN WIRES

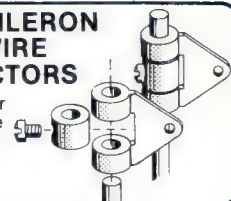
Ideal for Strip Ailerons. Hi, mid or low wing planes. Set of two Horn Wires with nylon bearings attached. No. 104 . . .



#### STRIP AILERON HORN WIRE CONNECTORS

Simplify your servo linkage hook-ups.

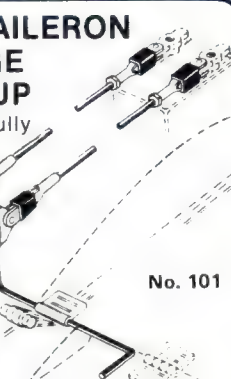
No. 103



#### STRIP AILERON LINKAGE HOOK-UP

Complete fully adjustable 22-pc. set.

Can be used on any high, mid or low wing plane.



No. 101

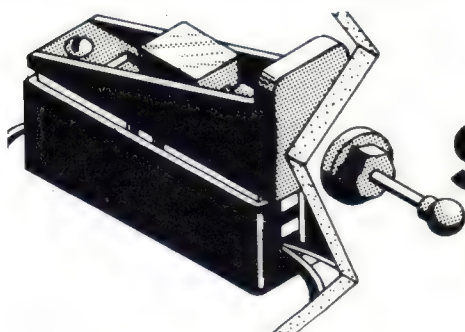
#### NYLON BEARINGS

Ideal for elevator and aileron linkage.

For 3/32 Horn wire. 4 each



No. 124



## KWIK-SWITCH MOUNT

The simplest, fastest and easiest way to mount your battery switch! This complete switch mounting set enables you to install your battery switch in minutes, anywhere in the fuselage, by drilling one, 3/16" hole!!! Excellent for use in planes, helicopters, boats and cars. Designed to fit any wall thickness up to 3/8"

Cat. No. 203

SEE PAGE 259 FOR RETAIL PRICES, TOWER PRICES, AND TOWER STOCK NUMBERS.

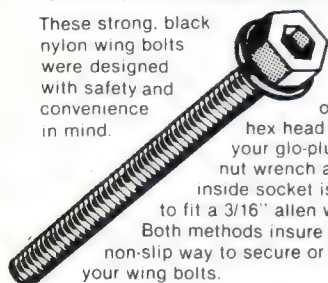


## DU-BRO

### ENGINE, WING & LANDING GEAR FITTINGS

#### 1/4-20 X 2" NYLON WING BOLTS

These strong, black nylon wing bolts were designed with safety and convenience in mind.



The outside hex head will fit your glo-plug/prop nut wrench and the inside socket is made to fit a 3/16" allen wrench. Both methods insure a safe, non-slip way to secure or loosen your wing bolts.

CAT. NO. 142  
H.D. WING BOLT SET NO. 256

#### HEAVY DUTY PLATED BRASS DURA-COLLARS

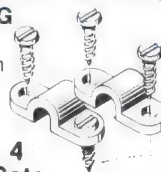


7/32" No. 243  
1/4" No. 244

**NEW!**

#### NYLON LANDING GEAR STRAPS

These strong nylon straps are molded to fit 1/8" and 5/32" music wire.  
No. 238 1/8"  
No. 239 5/32"

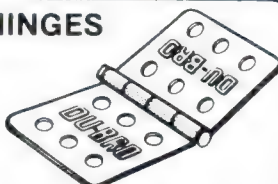


4 Sets

#### DU-BRO NYLON HINGES

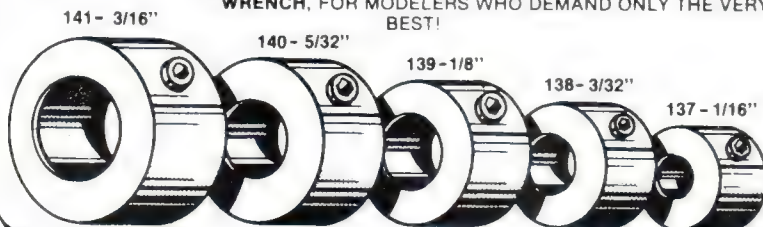
Easy installation. Embossed letters and holes make a better gluing surface. 5/8" x 1-1/8" open. Hinge pin locked in place.

No. 116 ( 6 each) ( MINI ) No. 118  
No. 117 (15 each) ( SIZE ) No. 119

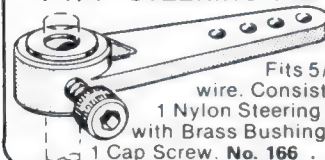


#### DU-BRO PLATED BRASS DURA COLLARS

ENOUGH STOCK SO THAT THREADS WILL NOT STRIP. CAN BE RE-WORKED FOR OTHER USES — NOT LIKE HARDENED STEEL. A NICE IMPROVEMENT THAT HAS ALWAYS BEEN THERE. STILL AVAILABLE IN SETS OF 4, COMPLETE WITH ALLEN WRENCH, FOR MODELERS WHO DEMAND ONLY THE VERY BEST!



#### 1-1/4" STEERING ARM



Fits 5/32" wire. Consists of 1 Nylon Steering Arm with Brass Bushing and 1 Cap Screw. No. 166

#### 1/4" STEERING ARM ASSEMBLY

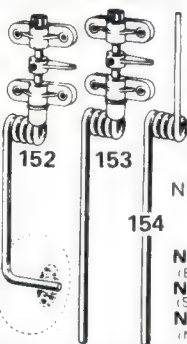
Nylon steering arm with brass bushing and set screw fits 5/32" nose gear wire.



**NEW SNAP-ON E-Z CONNECTOR INCLUDED**

No. 155

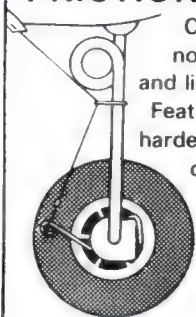
#### STEERABLE NOSE GEAR



Quality, shock absorbing nose gear. 5/32" heavy duty wire. Complete with Nylon Nose Gear Blocks and Steering Arm.

No. 152 (Bent)  
No. 153 (Straight)  
No. 154 (Nose Gear Wire)

#### FRICTION BRAKE



Complete 10 pc. nose wheel brake and linkage hook-up. Features NEW case hardened steel brake drum and other fine quality parts. Requires very little pressure to engage.

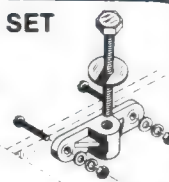
NO.157

(Wheel not included)

#### WING BOLT SET

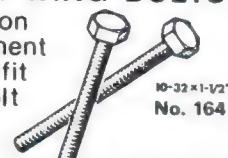
The up-to-date way to fasten wings to fuselage. Includes Nylon Bolts and Nylon Threaded Blocks - 22 piece set.

No. 159



#### NYLON WING BOLTS

Four nylon replacement bolts to fit Wing Bolt Set.



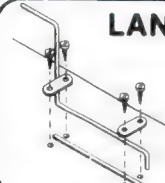
NO-32 X 1-1/2" No. 164

#### NYLON BLOCKS For 5/32" wire.



No. 156

#### LANDING GEAR STRAPS



Made of steel - light and strong. Includes 4 Straps and 8 Screws.

No. 158

#### FOAM TAPE



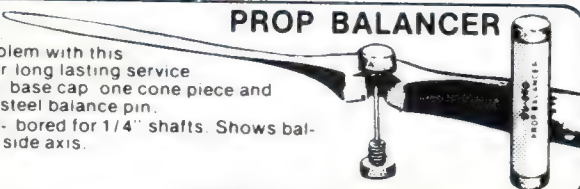
Quality Foam Tape - super sticky on one side - cuts down vibration. Ideal for wing saddles. 3 ft.

No. 163

#### PROP BALANCER

Rough props ruin planes and radios. Eliminate the problem with this fine tool. Made for long lasting service featuring Knurled base cap, one cone piece and precision ground steel balance pin. Fits all prop sizes - bored for 1/4" shafts. Shows balance on long and side axis.

No. 160



#### TANK FILTER



Combination weight and filter. Designed to fit all clunk tanks. Made of sintered bronze to give the ultimate in filtering.

No. 161

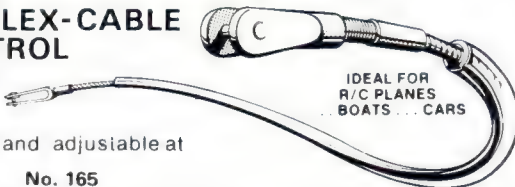


## DU-BRO

### CONTROL HOOK-UP ACCESSORIES

#### DU-BRO 20" FLEX-CABLE MOTOR CONTROL

Provides the ultimate in control cable assembly. Highly flexible, free running and adjustable at control horn.

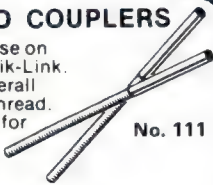


No. 165

IDEAL FOR  
R/C PLANES  
BOATS... CARS

#### THREADED COUPLERS

Designed for use on the Du-Bro Kwik-Link. Brass, 1 1/4" overall with 3/4" 2-56 thread. 1/16" opening for piano wire or cable. 2 each.



No. 111

#### SPLIT COUPLING SLEEVES

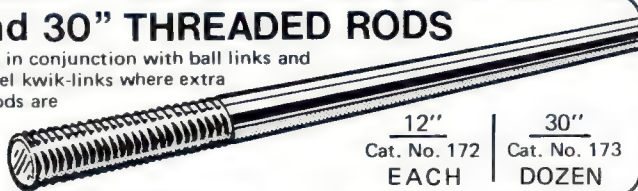
Pre-tinned for easy soldering. Designed for use with the Du-Bro Kwik-Link. Will fit .062 to .078 wire.



No. 110

#### 12" and 30" THREADED RODS

Can be used in conjunction with ball links and nylon or steel kwik-links where extra long push rods are needed. Bendable and strong



12"  
Cat. No. 172  
EACH

30"  
Cat. No. 173  
DOZEN

#### LARGE THREADED COUPLERS

Cat. No. 212

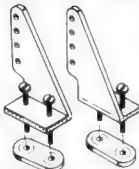


These new threaded couplers are now designed to fit perfectly on Kwik-Link rods and flex cable. 5 for only.

#### NYLON CONTROL HORNS

Four throw adjustment positions. Set contains one left and one right horn, two self-threading nut plates and four screws.

No. 105



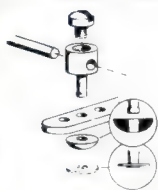
#### NEW E-Z CONNECTORS

Still  
only

WE HAVE INCLUDED IN EVERY PACKAGE OF E-Z CONNECTORS, 2 OF OUR NEW NYLON SNAP-ONS. ESPECIALLY MADE TO HOLD TIGHT ON ANY SIZE CONTROL ARM, THESE NEW SNAP-ONS CAN SAFELY BE USED OVER AND OVER AGAIN. FOR THOSE OF YOU WHO STILL PREFER A PERMANENT INSTALLATION, JUST PEEN ON THE WASHER AS BEFORE. YOUR CHOICE.

Cat. No. 121

**SNAP  
ON  
-Or-  
PEEN  
ON**



#### CONTROL OVER-RIDE SERVO SAVER



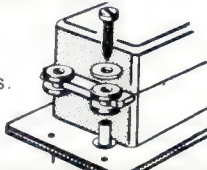
This adjustable, spring action assembly protects your servo from shock and stalling. Excellent for throttle or rudder nosewheel hookups. Both light and heavy duty springs are included for any linkage application.

No. 120

#### SMALL SERVO MOUNTING HARDWARE

60 pieces, enough for five servos.  
20 - Sheet Metal Screws.  
20 - Fibre Washers  
20 - Spacers.

No. 114



#### SMALL SERVO NATURAL RUBBER GROMMETS

20 pieces.



No. 115

#### NY-STEEL KWIK-ROD ASSEMBLY



No shrink - no stretch, free running fully adjustable at control horn. Strong, simple and easy to install. Hot, wet or cold days won't affect trim setting. Complete 31" assembly with Kwik-Links.

No. 102



184

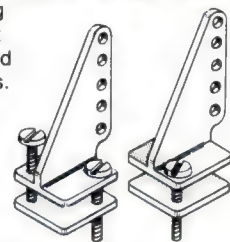


185

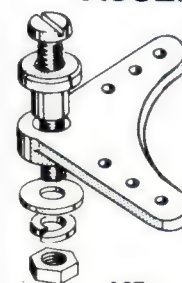
#### NYLON "T-STYLE" CONTROL HORNS

5 Throw adjustment positions. Each set includes two horns which are centered on the base, 2 self-threading nylon nut plates and 4 screws.

CAT. NO.  
237



#### NYLON BELLCRANK ASSEMBLY



90° Nylon Bellcrank with Brass Bushing, 4-40x3/4" Bolt, Washer, Lock Washer and Nut. 2 each per Set. INSIST ON THE FINEST!

167

SEE PAGE 259 FOR RETAIL PRICES, TOWER PRICES, AND TOWER STOCK NUMBERS.



## DU-BRO "SNAP-ON" BALL LINKS



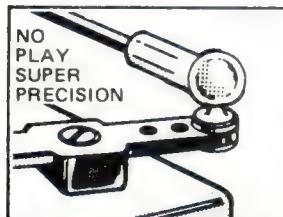
(2-56 THREADED COUPLER INCL)

### BOLT-ON LINK

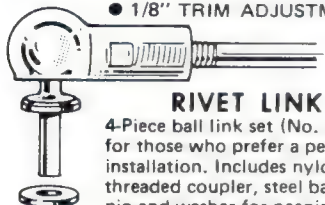
This 3-piece ball link set (No. 180) is a must for all helicopters and is readily adaptable for many linkage hook-ups on R/C planes, boats or cars. Ball joint action eliminates binding and is neat and clean in appearance.



- THREADED FOR 4-40 ROD OR BOLT
- TOUGH NYLON LINK SNAPS-ON AND HOLDS TIGHT



- AIRCRAFT QUALITY HIGH STRENGTH STEEL
- 1/8" TRIM ADJUSTMENT



### RIVET LINK

4-Piece ball link set (No. 182) for those who prefer a permanent installation. Includes nylon link, threaded coupler, steel ball with pin and washer for peening on. Absolutely no linkage play when ball links are used. Nylon link helps reduce vibration and looks good too!



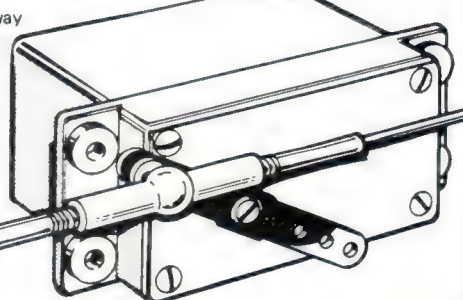
### THREADED LINK

5-Piece ball link set (No. 181) is excellent for off-set steering, throttle and servo hookups. Includes steel ball assembly with 2-56 thread, washer, nut, threaded coupler and nylon ball link. Easily adjustable.



## AILERON CONNECTOR & DUAL TAKE-OFF BALL LINK

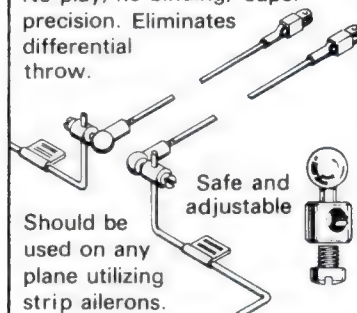
5-Piece set (No. 183) includes 2-way nylon link, 2 threaded couplers, 1 steel ball with pin and washer for peening assembly securely onto servo arm. For fast equal trim adjustments just "snap-off" nylon link, twist in desired direction and "snap" back on. EASY! Also great for rudder-nosewheel and elevator-brake hook-ups.



**DU-BRO PRODUCTS  
INCORPORATED**

## STRIP AILERON BALL LINK LINKAGE HOOK-UP

Fully adjustable 16 pc. aileron hook-up complete as shown. No play, no binding, super precision. Eliminates differential throw.

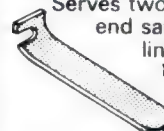


Should be used on any plane utilizing strip ailerons.

**No. 186** .....

## BALL LINK TOOL

Serves two uses. The curved end safely separates ball links and fits the 1/16" threaded ball link nut.



**No. 187**

## BALL LINK SOCKETS

Extra nylon sockets - Fits all styles of Du-bro ball links.



**No. 188** ..... 4 Each

## AILERON HORN WIRE BALL LINKS



Excellent hook up assembly for strip ailerons. Eliminates differential throw

**No. 189** ... 2 Sets

## 1/16" THREADED BALL LINK



This new 4 piece threaded ball link set fits perfectly in servo arm holes, bellcranks, nylon horns and throttle arms. Strong and easy to hook up - Just bolt it on!

**No. 190**



## DU-BRO

### MOUNTING BOLTS AND BLIND NUT SETS

For mounting engines - large or small. Includes 4 each of Bolts, Flat Washers, Lock Washers, Lock Washers and Blind Nuts. 16 pcs.



- No. 125 2-56 x 1/2"
- No. 126 3-48 x 3/4"
- No. 127 4-40 x 1-1/4"
- No. 128 6-32 x 1-1/4"

### SOCKET HEAD BOLT AND BLIND NUT SETS

For those who prefer socket head bolts. Includes 4 each of Bolts, Flat Washers, Lock Washers and Blind Nuts plus one Allen Wrench. 17 piece set. Two sizes. High strength steel.

- No. 129 4-40 x 1" . . .
- No. 130 6-32 x 1" . . .



### SOCKET HEAD BOLT BALL WRENCH SET

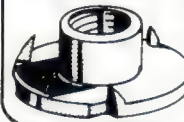


Fits 440 and 632 head bolts. High quality, alloy steel Heat treated for maximum torque. Close tolerances. Leads into any cap screw head from any angle. 4-3/4" blade ideal for reaching into those tight spots. Set of two.

No. 132 . . . . .

### BLIND NUTS

Can be used on 1/8" plywood (or thicker) without sticking thru. 4 Thread sizes. 4 per set.



- No. 133 2-56 . . .
- No. 134 3-48 . . .
- No. 135 4-40 . . .
- No. 136 6-32 . . .

### AIRCRAFT QUALITY BOLT SETS

Includes 4 each of Bolts, Flat Washers and Lock Nuts. 12 pcs. High Strength Steel.



- 174..... 2-56x1/2...
- 175..... 3-48x3/4...
- 176..... 4-40x1 1/4
- 177..... 6-32x1 1/4

Socket Head Bolts  
178..... 4-40x1..  
179..... 6-32x1..

### LOCK NUTS

Aircraft Quality Nylon Insert LOCK NUTS.



- 168 . . . . . 2-56
  - 169 . . . . . 3-48
  - 170 . . . . . 4-40
  - 171 . . . . . 6-32
- 12 per set . . .

### ALLEN WRENCHES

Two 6" wrenches to fit both socket head bolt sizes. 4-40 and 6-32.

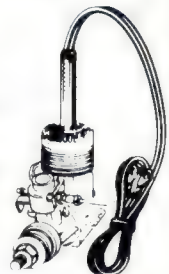
No. 131



2 for

### DU-BRO KWIK-GLO GLO-PLUG CONNECTOR

For engines .10 & up. One piece brass barrel snaps on to plug for positive starting. 24 - 1/2" long with attached battery lugs. An excellent accessory for today's kind of modeler.



No. 147 . . . . .

## FANTASTIC NEW SPRING ACTION KWIK-KLIPS

It's finally here!!! A battery clip that won't ever slip or vibrate off!



Spring action locks the Kwik-Klip onto the glo-plug for continuous positive contact.

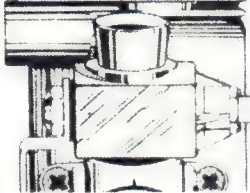
\*Indestructible steel and nylon parts.

\*Available with or without battery wires.

\*The best yet in engine starting accessories.

No. 150 (without battery wires)

No. 151 (with battery wires)



"QUICK ASSEMBLY"



Patent  
4,013,336

### 1/2 A KWIK-KLIPS

For engines .020 to .074.

No. 148 (without battery wires)

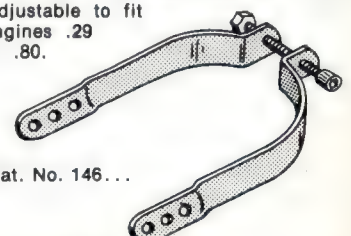
No. 149 (with battery wires)

Shown actual size on an .049.



### STEEL MUFFLER STRAPS

These steel, never break, muffler straps can be used with the Du-bro Muff-l-aire and our new Exhaust Extension Stock. Adjustable to fit engines .29 to .80.



Cat. No. 146 . . .

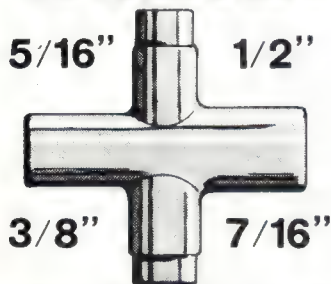


DU-BRO PRODUCTS INCORPORATED

SEE PAGE 259 FOR RETAIL PRICES, TOWER PRICES, AND TOWER STOCK NUMBERS.



## 4-WAY SOCKET WRENCH



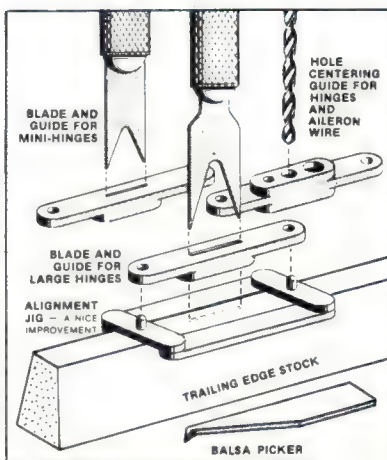
PERFECT FOR GLO-PLUGS, PROP NUTS AND NYLON BOLTS. ALSO FITS METRIC SIZES 8 M TO 13 M.

CAT. NO. 251

## KWIK-HINGE SLOTTER

FOR LARGE AND SMALL HINGES. THE ONLY UNIVERSAL SLOTTING TOOL THAT NOT ONLY CENTERS, BUT GUIDES YOUR BLADE FOR PERFECTLY ALIGNED HINGE SLOTS EVERY TIME!

The black oxidized, hardened steel blades fit neatly in a no. 2 x-acto knife handle and work in conjunction with our handy alignment jig that features 3 interchangeable snap-on guides. Two for large and small leaf hinges, and one for drilling 3 standard size holes to match any type of hinge you choose to use.



Cat. No. 216

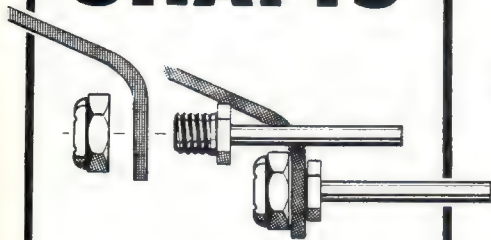
## K & B .40 EXHAUST PORT PLUGS

CAT. NO. 245



## DU-BRO

## SPRING STEEL AXLE SHAFTS



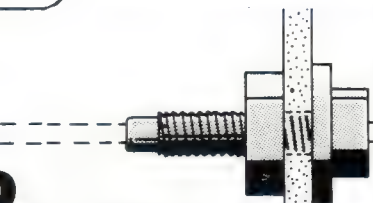
CAT. NO. 246 1-1/4" LONG x 1/8" DIA.

CAT. NO. 247 1-1/4" LONG x 5/32" DIA.

CAT. NO. 248 2" LONG x 5/32" DIA.

CAT. NO. 249 2" LONG x 3/16" DIA.

## WATER-PROOF PUSHROD FITTINGS



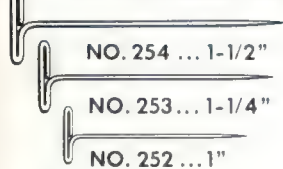
These special black nylon fittings are perfect for push rod exits on boats or seaplanes when used in conjunction with Du-Bro Kwik-Link Rods. These easy to install fittings will make any pushrod exit safe, free running and water tight. 3 sets

Cat. #214.



## STAINLESS STEEL T-PINS

STRONG, SMOOTH AND SHARP IN 3 POPULAR SIZES



NO. 254 ... 1-1/2"

NO. 253 ... 1-1/4"

NO. 252 ... 1"

100 PER PACKAGE

PINS SHOWN ACTUAL SIZE

### DU-BRO SUPER SMOKER

A POSITIVE, NO LEAK FUEL AND PRESSURE SHUTOFF VALVE

PERFECT FOR:

- Smoke systems--anyone with a plane large enough to install a separate smoke tank can incorporate the super smoker for added flying enjoyment.
- Inflight Fuel Shutoffs For Pylon or Free Flight R/C.

SUPER SIMPLE AND EASY TO INSTALL  
This valve is compact enough to mount anywhere--in any position and requires one extra servo to operate.

The Du-Bro Super Smoker comes assembled complete with 34' of neoprene fuel tubing, two pressure fittings, mounting screws and complete instructions.

CAT. NO. 255

DU-BRO PRODUCTS, INC.  
4475 15th St. • Kent, WA 98032

## NEXT PAGE

ALL OF THE DUBRO ITEMS SHOWN ON PAGES 252 THROUGH THIS PAGE AND ALL OF THE GOLDBERG ITEMS SHOWN ON PAGES 260 THROUGH 262 ARE LISTED ON THE NEXT PAGE ALONG WITH RETAIL PRICE, TOWER PRICE, AND TOWER STOCK NUMBERS.

BETWEEN THESE TWO FINE LINES YOU WILL BE ABLE TO FIND JUST ABOUT ANY AND EVERY ACCESSORY YOU COULD EVER NEED. BOTH DUBRO AND GOLDBERG ARE FINE COMPANIES AND THEIR PRODUCTS ARE EXCELLENT QUALITY.

TAKE A FEW MINUTES AND ACQUAINT YOURSELF WITH THESE HANDY AND OFTENTIMES ABSOLUTELY NECESSARY ACCESSORIES. HAVING THE CORRECT ACCESSORY AT THE RIGHT TIME IS THE DIFFERENCE BETWEEN AN EASY INSTALLATION AND A NIGHTMARE.

A COMPLETE MODELERS WORKSHOP WILL ALWAYS HAVE A PARTS BIN TYPE CABINET FULL OF ALL KINDS OF ACCESSORIES. INSTEAD OF BUYING A \$50.00 KIT OR ENGINE--PICK OUT AN ASSORTMENT OF \$50.00 WORTH OF ACCESSORIES. IT WILL MAKE YOUR BUILDING IN THE FUTURE EFFORTLESS.



## DU-BRO

DUB20101	DUBRC	101	STRIP AILERON ASSEMBLY	2.95	2.65	253
DUB20102	DUBRC	102	CONTROL ROD ASSEMBLY	1.49	1.40	255
DUB20103	DUBRC	103	STRIP AIL HORN CON-2	.79	.75	253
DUB20104	DUBRC	104	STRIP AIL BEARINGS-2	.89	.85	253
DUB20105	DUBRC	105	LG CONTROL HORNS LGR	.49	.47	255
DUB20106	DUBRC	106	KWIK LINK 4 IN.	.49	.47	253
DUB20107	DUBRC	107	1/2A CONTROL HORNS	.49	.47	252
DUB20108	DUBRC	108	KWIK LINK 12 IN.	.49	.47	253
DUB20109	DUBRC	109	KWIK LINK CLEVIS 2	.75	.70	253
DUB20110	DUBRC	110	COUPLING SLEEVES 4	.30	.29	255
DUB20111	DUBRC	111	THREADED COUPLERS 2	.40	.37	255
DUB20112	DUBRC	112	SCDER LINKS 2	.69	.65	253
DUB20113	DUBRC	113	MINI PUSHROD ASSEMBLY	1.49	1.40	252
DUB20114	DUBRC	114	SM SERVO MTG. HDWE-5	1.20	1.15	255
DUB20115	DUBRC	115	SM RUBBER GROMETS-20	.80	.75	255
DUB20116	DUBRC	116	LARGE NYLON HINGE-E	1.10	1.05	254
DUB20117	DUBRC	117	LARGE NYLON HINGE-15	2.49	2.10	254
DUB20118	DUBRC	118	SMALL NYLON HINGE-6	1.00	.95	254
DUB20119	DUBRC	119	SMALL NYLON HINGE-15	1.95	1.85	254
DUB20120	DUBRC	120	CVERRIDE SERVO SAVER	.98	.95	255
DUB20121	DUBRC	121	E-Z CONNECTORS 2	.98	.95	255
DUB20122	DUBRC	122	NYLON KWIK LINK 2	.39	.37	253
DUB20123	DUBRC	123	NYLON LINK W/ROD	.29	.27	253
DUB20124	DUBRC	124	NYLON BEARING 3/32-4	.75	.70	253
DUB20125	DUBRC	125	MTG BOLT/NUTS 256 4	.50	.47	257
DUB20126	DUBRC	126	MTG BOLT/NUTS 348 4	.50	.47	257
DUB20127	DUBRC	127	MTG BOLT/NUTS 440 4	.55	.52	257
DUB20128	DUBRC	128	MTG BOLT/NUTS 632 4	.55	.52	257
DUB20129	DUBRC	129	SKT BOLT&BN 440X1 -4	1.10	1.05	257
DUB20130	DUBRC	130	SKT BOLT&BN 632X1 -4	1.10	1.05	257
DUB20131	DUBRC	131	SOCKET WRENCHES 2	1.10	1.05	257
DUB20132	DUBRC	132	BALL WRENCH SET 2	4.25	3.80	257
DUB20133	DUBRC	133	BLIND NUTS 256 4	.35	.33	257
DUB20134	DUBRC	134	BLIND NUTS 348 4	.35	.33	257
DUB20135	DUBRC	135	BLIND NUTS 440 4	.35	.33	257
DUB20136	DUBRC	136	BLIND NUTS 632 4	.40	.37	257
DUB20137	DUBRC	137	DURA COLLARS 1/16 4	.80	.75	254
DUB20138	DUBRC	138	DURA COLLARS 3/32 4	.80	.75	254
DUB20139	DUBRC	139	DURA COLLARS 1/8 4	.80	.75	254
DUB20140	DUBRC	140	DURA COLLARS 5/32 4	.80	.75	254
DUB20141	DUBRC	141	DURA COLLARS 3/16 4	.80	.75	254
DUB20142	DUBRC	142	1/4-20X2 WING BOLT 4	1.00	.95	254
DUB20143	DUBRC	143	MUFFLER STRAP	1.50	1.40	324
DUB20144	DUBRC	144	KWIK GLOW PLUG CORD	2.25	2.00	257
DUB20145	DUBRC	145	1/2 A KWIK KLIP	.75	.70	257
DUB20146	DUBRC	146	1/2 A KWIK W/CORD	1.25	1.20	257
DUB20147	DUBRC	147	KWIK KLIP	.85	.80	257
DUB20148	DUBRC	148	KWIK KLIP W/CORD	1.40	1.30	257
DUB20149	DUBRC	149	NOSE GEAR, BENT	2.95	2.65	254
DUB20150	DUBRC	150	NOSE GEAR, STRAIGHT	2.95	2.65	254
DUB20151	DUBRC	151	NOSE GEAR WIRE 5/32	.75	.70	254
DUB20152	DUBRC	152	STEERING ARM ASSEMBLY	1.25	1.20	254
DUB20153	DUBRC	153	NOSE GEAR BLOCKS 2	1.25	1.20	254
DUB20154	DUBRC	154	FRICTION BRAKE- NOSE	2.95	2.65	254
DUB20155	DUBRC	155	LANDING GR STRAPS 4	.40	.37	254
DUB20156	DUBRC	156	NYLON WING BOLT SET	1.25	1.20	254
DUB20157	DUBRC	157	PROP BALANCER	2.95	2.65	355
DUB20158	DUBRC	158	R/C TANK FILTER	1.15	1.10	331
DUB20159	DUBRC	159	FINAL FILTER	1.75	1.65	331
DUB20160	DUBRC	160	FOAM TAPE - 3 FT.	.75	.70	254
DUB20161	DUBRC	161	NYLON WING BOLTS 2	.75	.70	254
DUB20162	DUBRC	162	FLEX CABLE 20 IN.	1.49	1.35	255
DUB20163	DUBRC	163	STEERING ARM LONG	.75	.70	255
DUB20164	DUBRC	164	90C. BELLCRANK ASY-2	.75	.70	255
DUB20165	DUBRC	165	2-56 LOCK NUTS 12	1.10	1.05	257
DUB20166	DUBRC	166	3-48 LOCK NUTS 12	1.10	1.05	257
DUB20167	DUBRC	167	4-40 LOCK NUTS 12	1.10	1.05	257
DUB20168	DUBRC	168	6-32 LOCK NUTS 12	1.10	1.05	257
DUB20169	DUBRC	169	12 IN. THREADED ROD	.15	.14	255
DUB20170	DUBRC	170	-12- 36 IN. THRD. RODS	3.60	3.50	255
DUB20171	DUBRC	171	2-56X1/2 BOLT SET -4	.50	.47	257
DUB20172	DUBRC	172	3-48X3/4 BOLT SET -4	.50	.47	257
DUB20173	DUBRC	173	4-40X1-1/4 BLT SET-4	.55	.52	257
DUB20174	DUBRC	174	6-32X1-1/4 BLT SET-4	.55	.52	257
DUB20175	DUBRC	175	SKT BOLT GLN 440X1 4	1.10	1.05	257
DUB20176	DUBRC	176	SKT BOLT GLN 632X1 4	1.10	1.05	257
DUB20177	DUBRC	177	BOLT-CN BALL LINK	.85	.80	256
DUB20178	DUBRC	178	THREADED BALL LINK	.85	.80	256
DUB20179	DUBRC	179	RIVET BALL LINK	.85	.80	256
DUB20180	DUBRC	180	DUAL TAKE-OFF LINK	1.00	.95	256
DUB20181	DUBRC	181	NYLON LINK W/ROD 5	1.39	1.30	255
DUB20182	DUBRC	182	KWIK LINK 12 IN. 5	2.25	2.15	255
DUB20183	DUBRC	183	AIL. BALL LINK ASSLY	2.95	2.75	256
DUB20184	DUBRC	184	BALL LINK TOOL	.50	.47	256
DUB20185	DUBRC	185	BALL LINK SOCKET 4	1.00	.95	256
DUB20186	DUBRC	186	HORN WIRE BALL LINK2	1.75	1.65	256
DUB20187	DUBRC	187	1/16 THRD BALL LINK	.85	.80	256
DUB20188	DUBRC	188	KWIK-SWITCH MOUNT	1.75	1.65	253
DUB20189	DUBRC	189	LG THRD COUPLER 5	1.20	1.15	255
DUB20190	DUBRC	190	EXHAUST EXTENS 6"	3.95	3.55	324
DUB20191	DUBRC	191	WATERPROOF FITINGS-3	1.00	.95	258
DUB20192	DUBRC	192	V-TAIL MIXER	4.95	4.45	253
DUB20193	DUBRC	193	KWIK-HINGE SLOTTER	1.95	1.85	258
DUB20194	DUBRC	194	MINI KWIK LINKS 2	.39	.37	253
DUB20195	DUBRC	195	MINI LINK W/ROD 5	1.39	1.35	252
DUB20196	DUBRC	196	1/2A STRIP AIL LINK.	1.49	1.45	252
DUB20197	DUBRC	197	SPRING COUPLERS .045	.39	.37	252
DUB20198	DUBRC	198	SPRING COUPLERS 1/16	.39	.37	252
DUB20199	DUBRC	199	1/2A STEER. NOSE GR.	2.25	2.15	252
DUB20200	DUBRC	200	T-SHYLE NYLON HORN 2	.49	.47	255
DUB20201	DUBRC	201	1/8 NYLON GR STRAP 4	.49	.47	254
DUB20202	DUBRC	202	5/32 NYLON GR STRAP 4	.49	.47	254
DUB20203	DUBRC	203	1/4 TURN LATCH 2	2.50	2.40	252
DUB20204	DUBRC	204	DURA COLLARS 7/32 4	1.00	.95	254
DUB20205	DUBRC	205	DURA COLLARS 1/4 4	1.00	.95	254
DUB20206	DUBRC	206	EXHAUST PLUGS-K&B 40	1.00	.95	324

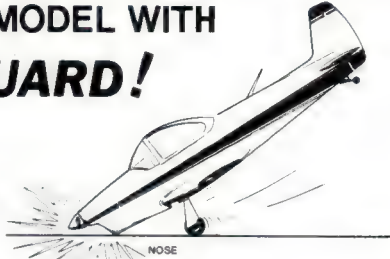
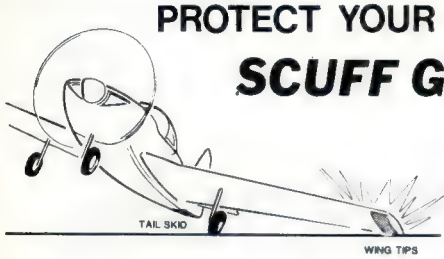
DUB20246	DUBRC	246	2 AXLES 1 1/4X1/8	2.00	1.90	258
DUB20247	DUBRC	247	2 AXLES 1 1/4X5/32	2.00	1.90	258
DUB20248	DUBRC	248	2 AXLES 2X5/32	2.00	1.90	258
DUB20249	DUBRC	249	2 AXLES 2X3/16	2.00	1.90	258
DUB20250	DUBRC	250	4-WAY WRENCH	2.95	2.65	316
DUB20251	DUBRC	251	T-PINS 1 IN. 100	1.50	1.45	258
DUB20252	DUBRC	252	T-PINS 1 1/4 IN. 100	1.75	1.65	258
DUB20253	DUBRC	253	T-PINS 1 1/2 IN. 100	2.00	1.90	258
DUB20254	DUBRC	254	SUPER SMOKER	7.95	7.15	340
DUB20255	DUBRC	255	H.C. WING BOLT SET	1.50	1.45	254

## GOLDBERG

GBG22005	GBG	144	AA1 ADJUSTABLE AXLE	.98	.95	260
GBG23000	GBG	243	PEG3 PUSHROD EXIT AIL.	.69	.65	261
GBG23001	GBG	104	PEG1 PUSHROD EXIT LG.	.75	.70	260
GBG23002	GBG	105	PEG2 PUSHROD EXIT SM.	.75	.70	260
GBG23003	GBG	213	SK1 SNAP-R-KEEPER	.50	.45	260
GBG23004	GBG	212	PG-1 PUSHROD CONNECTRS	.98	.95	262
GBG23011	GBG	106	PEG1H LG. HOODED EXIT	.69	.65	261
GBG20101	GBG	264	N1 NYLON TAPE 3/4 IN.	.45	.40	262
GBG20102	GBG	265	N2 NYLON TAPE 2 1/2	.69	.65	262
GBG20140	GBG	266	NYLON TAPE 4 IN. N4	.98	.95	262
GBG20141	GBG	267	NYLON TAPE 6 IN. N6	1.50	1.45	262
GBG20159	GBG	332	WHITE & BROWN 72.080	1.25	1.20	262
GBG20160	GBG	333	WHITE & BLUE 72.160	1.25	1.20	262
GBG20161	GBG	334	WHITE & RED 72.240	1.25	1.20	262
GBG20162	GBG	335	WHITE & VIOLET 72.320	1.25	1.20	262
GBG20163	GBG	336	WHITE & ORANGE 72.400	1.25	1.20	262
GBG20164	GBG	337	WHITE & YELLOW 72.960	1.25	1.20	262
GBG20165	GBG	338	WHITE & GREEN 75.640	1.25	1.20	262
GBG20200	GBG	162	WC-116 COLLARS 1/16"	.89	.85	261
GBG20202	GBG	163	WC-332 COLLARS 3/32"	.89	.85	261
GBG20204	GBG	164	WC-180 COLLARS 1/8"	.89	.85	261
GBG20206	GBG	165	WC-532 COLLARS 5/32"	.89	.85	261
GBG20208	GBG	166	WC-316 COLLARS 3/16"	.89	.85	261
GBG23012	GBG	107	PEG2H SM. HOODED EXIT	.69	.65	261
GBG24207	GBG	98	RK2-7 KLETT HINGE SM.	1.29	1.25	260
GBG24215	GBG	99	RK2-15 KLETT HINGE SM.	2.29	2.20	260
GBG24307	GBG	100	RK3-7 KLETT HINGE LG.	1.45	1.40	260
GBG24315	GBG	101	RK3-15 KLETT HINGE LG.	2.75	2.60	260
GBG24340	GBG	96	RK4 FLEX PT HNG-SM 18	1.40	1.35	260
GBG24350	GBG	97	RK5 FLEX PT HNG-MED 18	1.40	1.35	260
GBG24400	GBG	270	HSK-1 HINGE SLOT KIT	1.95	1.85	261
GBG24402	GBG	274	HM-1 HINGE-LINE MARKR	.50	.45	261
GBG24404	GBG	271	SF-1 SLCF FORK BLADE	.50	.45	261
GBG24406	GBG	272	SH-1 SLCF HOOK BLADE	.50	.45	261
GBG25109	GBG	247	AP1 1/16 AIL PUSHRODS	.89	.85	262
GBG25201	GBG	211	LR-1 LINK RODS 6	.75	.70	260
GBG25217	GBG	217	TC-116 THRD COUPLER-2	.40	.37	261
GBG25301	GBG	206	SL1 SNAP-LINK W/ROD	.29	.27	260
GBG25302	GBG	207	SL2 SNAP-LINK	.40	.37	260
GBG25400	GBG	150	SA-180 1/8 STEER. ARM	.98	.95	262
GBG25401	GBG	209	MS-1 MINI-SNAP W/ROD	.29	.27	260
GBG25402	GBG	210	MS2 MINI-SNAP	.49	.45	260
GBG26101	GBG	153	TB1 TAILWHEEL BRACKET	.49	.45	260
GBG26105	GBG	275	NMB-1 90 DEG. BRACKET	.50	.47	261
GBG26118	GBG	167	3/32 STRBL NOSEGR SET	2.75	2.60	261
GBG26119	GBG	146	SN-180 1/8 NOSE GEAR	2.95	2.80	262
GBG26120	GBG	147	SNA-532 5/32 NOSE SET	3.95	3.65	262
GBG26121	GBG	168	NS-180 NOSE GR. STRUT	.89	.85	262
GBG26122	GBG	169	SNA-532 ADJ NOSE STRT	1.95	1.85	262
GBG26216	GBG	145	G16N STEER NOSE GEAR	3.25	3.00	260
GBG26301	GBG	149	NB532 NCSE GR BEARING	1.24	1.20	260
GBG26302	GBG	148	NB180 NCSE GR BEARING	1.25	1.20	262
GBG26401	GBG	151	SA532 STEERG ARM 5/32	.98	.95	260
GBG26403	GBG	249	AB3 ADJ HORN BRCKT-4	.50	.47	260
GBG26404	GBG	278	AH1 ANGLE HOLD-DOWNS	.79	.75	262
GBG26405	GBG	277	FH1 FLAT HOLD-DOWNS	.79	.75	262
GBG27101	GBG	305	J86 J-BOLTS & NUTS	.49	.47	260
GBG27106	GBG	306	LJ86 LONG J-BOLTS	.79	.75	260
GBG27128	GBG	155	WS-1 WING SKIDS	.59	.55	262
GBG27129	GBG	156	LGS-38 3/8 GEAR STRAP	.59	.55	262
GBG27130	GBG	157	LGS-50 1/2 GEAR STRAP	.59	.55	262
GBG27131	GBG	158	WRS-116 1/16 RETAIN	.49	.47	262
GBG27132	GBG	159	WRS-332 3/32 RETAIN	.49	.47	262
GBG27136	GBG	160	LGC-180 LG CLAMPS 1/8	.59	.55	261
GBG27137	GBG	161	LGC-532 LG CLAMP 5/32	.59	.55	261
GBG27146	GBG	308	SM52-50 2X1/2 SCREWS	.49	.47	262
GBG27148	GBG	310	SM54-50 4X1/2 SCREWS	.45	.43	262
GBG27201	GBG	102	SD1 SAFETY DRIVER LG.	1.45	1.40	260
GBG27202	GBG	103	SD2 SAFETY DRIVER SM.	1.45	1.40	260
GBG27302	GBG	307	SM52-38 2X3/8 SCREWS	.45	.43	262
GBG27304	GBG	309	SM54-38 4X3/8 SCREWS	.45	.43	262
GBG27404	GBG	303	BN4 #4-40 BLIND NUTS	.40	.37	262
GBG27406	GBG	216	SN1 SNAP NUTS 4	.40	.37	262
GBG27501	GBG	260	EB1 ENGINE BRACKET	.85	.80	321
GBG28401	GBG	312	SH-401 4-40X1/8 SCRWs	.49	.47	262
GBG28402	GBG	311	SH-402 4-40X1/4 SCRWs	.49	.47	262
GBG28403	GBG	325	SH-403 4-40X3/8 SCRWs	.49	.47	262
GBG28404	GBG	313	SH-404 4-40X1/2 SCRWs	.49	.47	262
GBG28406	GBG	314	SH-406 4-40X3/4 SCRWs	.49	.47	262
GBG28408	GBG	315	SH-408 4-40X1 SCRWs	.49	.47	262
GBG28410	GBG	316	SH-410 4-40X1.25 SCRW	.69	.65	262
GBG28412	GBG	317	SH-412 4-40X1.5 SCRWs	.69	.65	262
GBG28601	GBG	318	SH-601 6-32X1/8 SCRWs	.69	.65	262
GBG28604	GBG	319	SH-604 6-32X1/2 SCRWs	.49	.47	262
GBG28606	GBG	320	SH-606 6-32X3/4 SCRWs	.49	.47	262
GBG28608	GBG	321	SH-608 6-32X1 SCRWs	.49	.47	262
GBG28610	GBG	322	SH-610 6-32X1.25 SCRW	.69	.65	262
GBG28612	GBG	323	SH-612 6-32X1.5 SCRWs	.69	.65	262
GBG29101	GBG	244	AB1 AILERON BELLCRANK	.75	.70	262
GBG29102	GBG	263	BCH1 1/2A BELLCRANK	.45	.43	262
GBG29110	GBG	248	SAH-332 3/32 AIL HORN	1.29	1.25	262
GBG29202	GBG	215	CH2 SMALL CONTRL HORN	.50	.45	262
GBG29204	GBG	245	AB4 AIL & ELEV HORN	.75	.70	262
GBG29301	GBG	246	AC1 AILERON COUPLER	.85	.80	262
GBG20150	GBG	290	SCUFF GUARD	.98	.95	262



## PROTECT YOUR MODEL WITH SCUFF GUARD!

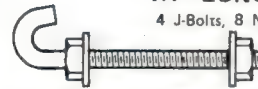


Why let your beautiful model start getting scratched up? Apply a strip of SCUFF GUARD to wing tips and other damage prone areas. Scuffing and scratches are no problem with this clear space-age material. It's super tough, flexible, and sticks readily to any clean, finished surface. Keep your handiwork looking its best — with SCUFF GUARD!

- Eliminates tedious repairs
  - Transparent — nearly invisible after application
  - Long lasting
  - Fuel proof
  - Easy to use — just remove protective backing and apply.
- CAUTION:** Surface must be clean and free from traces of oil.
- Cures with age, becoming a permanent bond.
  - Use on any finished curved or flat surfaces.
  - A clear protection tape on white backing 1" x 12" strip No. 290(SG1)

## 1 1/4" LONG J-BOLTS

4 J-Bolts, 8 Nuts, 8 Washers



LJB6

Long J-Bolts are especially useful for holding tanks in place as illustrated here on profile fuselages.



1/2" J-BOLTS.  
JLB6

## TAILWHEEL BRACKET

TBI



The simplest tailwheel mounting bracket yet — just cut a slot in the rear bottom of the fuselage, smear epoxy on the glue fin, and slide it into place.

## NEW! SMALL FLEX POINT HINGES FOR 1/8" BALSA — BY KLETT

YOU ASKED FOR IT!!!

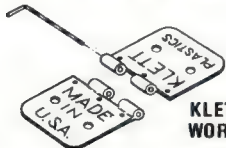
Modelers not only accepted our REGULAR FLEX POINT HINGE, but asked for small ones for 1/8" balsa. So — HERE IT IS!

### DESIGN ADVANTAGES:

- Simplest possible installation — Drill holes and apply epoxy.
- Easy to get ailerons very close to wing for maximum effect.
- Web area combined with barbed shank absorbs vibration and flutter permitting the hinge to flex only at the hinge line.
- Web provides visual axis alignment.



RK4 SMALL  
18 for  
RK5 REGULAR  
18 for

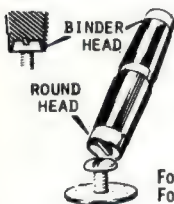


KLETT HINGES —  
WORLD'S FINEST!

Designed and manufactured by Roy Klett, originator of world-famous RK hinges. An exclusive with Carl Goldberg, these hinges are made with exceptional care and attention to detail. The small RK2 hinges are so thin all you need is a knife slit. The regular size RK3 hinges are the slickest you've ever seen — try holding one leaf and waving the other! And both have removable music wire pins. Ask your dealer for the best — Klett hinges.

RK2-7 7  
RK3-7 7

RK2-15 15  
RK3-15 15



**NEW KLETT SAFETY DRIVER**  
SOCKETS DOWN ONTO SCREW  
HEAD — CAN'T SLIP OFF AND  
DAMAGE YOUR WING!

Takes Round Head Screws and  
Binder Head.

### KLETT SAFETY DRIVER

For 1/4" Nylon Screws SD1  
For #10 Nylon Screws SD2

### KLETT PUSHROD EXIT GUIDES

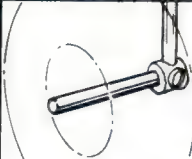


To protect your fuselage and insure smooth operation of your pushrods. Precision made of tough nylon. Easy installation. Large for 5/64" wire, small for 1/16" wire.

PEG-1 LARGE 4 per pkg.  
PEG-2 SMALL 4 per pkg.

## 5/32" ADJUSTABLE AXLE

Adjustable axle allows you to easily have the strut length you want. Both the axle and screw are hardened steel. Just file a flat on the strut, and tighten axle in place. AA1



## STEERABLE NOSE GEAR

Versatile — steering arm can be to either side, or slightly up or down, or mounted on bottom with extra collar in slot. Steering arm is nylon, stiff enough for good control, yet can flex under shock to protect servo. Collar is hardened steel — won't strip like brass. Screw is hardened steel, too. You can really torque it and get good grip on music wire strut without a flat.



Complete steerable nose gear with nylon bearing, 5/32" plated music wire strut, extra collar, blind nuts, screws and washers G16N

## NYLON STEERING ARM

Hardened steel collar and screw



## NYLON BEARING

One-piece design mounts to firewall without alignment problems. Includes blind nuts, screws and washers



## CONTROL HORNS

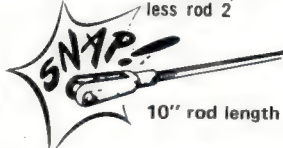
Our new horns have the upright part rising from the center of the base for maximum stability. Holes are right size for 1/16" wire; nut plate for simplest mounting. short horns CH2, with screws



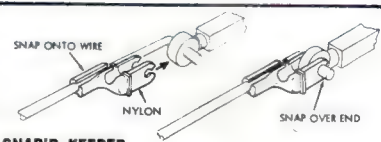
**UNIQUE SNAP-LINK!** Patent 3711134. Now for the first time — you can buy a truly safe link — the SNAP-Link!

- Tiny 45° shoulder snaps through arm, prevents accidental opening. So unique it's Patented.
- One-piece design — no separate pieces that might come apart.

Snap-Link, Regular, with rod SL1  
Mini-Snap-Link, with rod MS1  
Snap-Link SL2 or Mini-Snap MS2, less rod 2



10" rod length



## SNAP'R KEEPER

Quickest, handiest way to secure pushrod wire end to servos, horns, etc. Works on wire 1/4 to 1/8" diameter. SK1



10" rod length

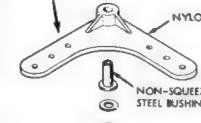
## Spare LINK RODS

Strong, quality threaded rods to work in 2-56 clevis.

Rod hardness just right. LR1 — 6



HOLES RIGHT SIZE FOR 1/16" WIRE



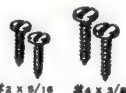
## AILERON BELLCRANK

Bellcrank has steel bushing of proper size, so crank can be screwed firmly in place without binding. No electrical noise — all metal parts are screwed tightly together — AB1 2



## 1/2A BELLCRANK AND HORN

Made of nylon, this new set provides smooth 1/2A control line operation. Easy on dacron lines, too BCH1



## SHEET METAL SCREWS

Like wood screws, but better. Sharp, clean, full-depth threads, hard and strong. Excellent for mounting servos, etc. Includes washers — No. 2 x 3/8 SMS2 10; No. 4 x 3/8 SMS4 8.

## BLIND NUTS



## #6 J-BOLTS & NUTS

Twice as strong as #4s

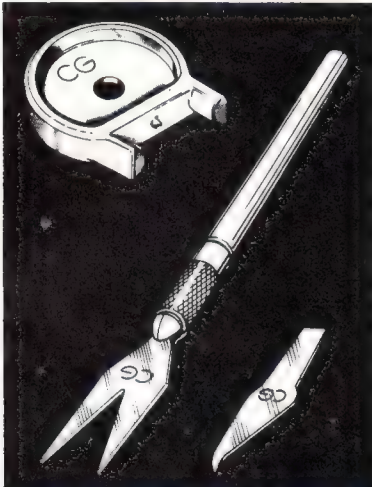


No. 4-40 blind mounting nuts are by far the most popular size. Ours are steel, made to high quality standards, and plated for corrosion prevention. 4

SEE PAGE 259 FOR RETAIL PRICES, TOWER PRICES, AND TOWER STOCK NUMBERS.



## HINGE SLOTTING KIT



Here at last is a uniquely simple Hinge Slotting System - makes hinge slots so easy you'll wish you'd had it years ago! First, the Hinge-Line Marker, developed from a great suggestion by modeler Mike Corbett. Takes trailing edges, etc., 3/16" to 9/16" thick, and scribes an accurate center-line in seconds! Does it even if the trailing edge is tapered! No measuring needed!

Next, the Slotting Fork pierces a slot the correct thickness and width in 2 to 5 seconds! So easy you just won't believe it!

And to slot a wide solid balsa stab or fin, you first use the Fork, then clean out the chips with the Slotting Hook!

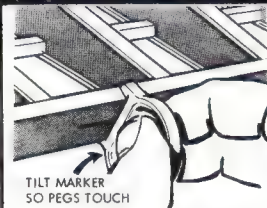
Complete Hinge Slotting Kit including special aluminum handle HSK-1

Replacement Parts available

Hinge-Line Marker HM-1

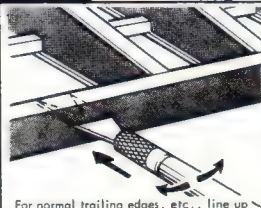
Slotting Fork blade SF-1

Slotting Hook Blade SH-1

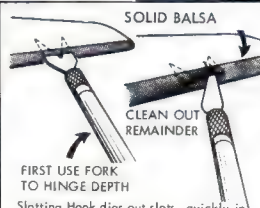


TILT MARKER  
SO PEGS TOUCH

Tilt Marker so Guide Pegs touch the wood, then lightly pass the Marker back and forth. Point will scribe center-line.

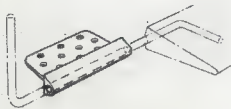


For normal trailing edges, etc., line up Slotting Fork on center line and push through. Use end of handle to press in a recess for hinge knuckle.



SOLID BALSA  
CLEAN OUT REMAINDER  
FIRST USE FORK TO HINGE DEPTH  
Slotting Hook digs out slots quickly in wide balsa. With practice, using the Slotting Fork first works out a little better.

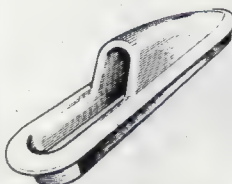
### AILERON & ELEVATOR HORN BEARING



If you like precision fits, ask to see the KLETT Horn Bearing. Superior to others. It reduces play, and has a thin tapered tab to facilitate entry into a slot, and holes for glue.

AB4-4 for

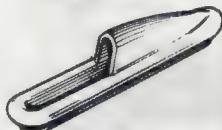
### AILERON PUSHROD EXIT



A beautiful fairing where the aileron pushrod exits your wing. Easy to install. Made from natural nylon.

PEG3-2 for

### HOODED PUSHROD EXIT GUIDE



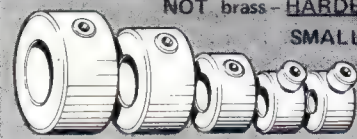
For 5/64" Wire PEG1-H 2 for  
For 1/16" Wire PEG2-H 2 for

### REGULAR PUSHROD EXIT GUIDE



For 5/64" Wire PEG1 4 for  
For 1/16" Wire PEG2 4 for

## COLLARS



NOT brass - **HARDENED STEEL**  
SMALLER - MORE  
COMPACT

WC-316 WC-532 WC-180 WC-332 WC-116

Have you ever seen a wheel come off on a hard landing, and go bouncing away? Chances are it came off because the wheel collar was brass - or even aluminum! The soft threads just couldn't take a reasonable torque from the set screw. The new CG Collars are different - **hardened steel**. They're also smaller and more compact, 5 sizes from 1/16" I.D. up to 3/16".

4 Collars and Screws, any size -

## LANDING GEAR CLAMPS

For 5/32" Wire and 1/8" Wire. Molded of tough Nylon, 4 per package, complete with Screws.

LGC-532 4 Clamps, 8

LGC-180 4 Clamps, 8

Screws

Screws

Screws

Screws

Screws

Screws

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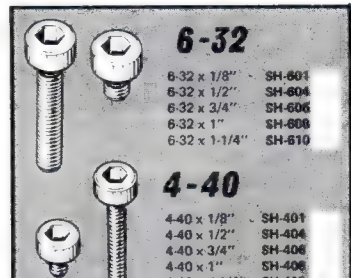
Screws

Screws

Screws

Screws

## SOCKET HEAD SCREWS



6-32

6-32 x 1/8" SH-601  
6-32 x 1/2" SH-604  
6-32 x 3/4" SH-606  
6-32 x 1" SH-608  
6-32 x 1-1/4" SH-610

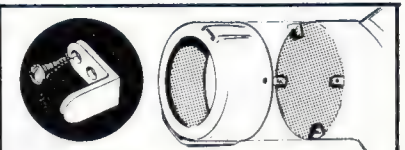
4-40

4-40 x 1/8" SH-401  
4-40 x 1/2" SH-404  
4-40 x 3/4" SH-406  
4-40 x 1" SH-408  
4-40 x 1-1/4" SH-410

Socket Head screws have long been favored by expert modelers. They are made of a higher alloy steel, and can be torqued down precisely. Now for the first time, very short and long lengths are made available in 2 popular thread sizes. 4 screws and 4 washers per set.

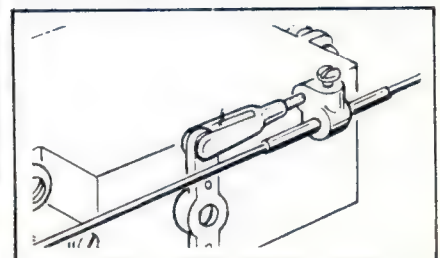
## GOLDBERG

## 90° MOUNTING BRACKETS



Dozens of Uses! Mount Cowls, Canopies, Internal Pushrod Guides, etc. Molded of Nylon, 4 per package, with Screws.

NMB-1 Four 90° Mounting Brackets, 8 Screws



**Carl Goldberg/Aileron Coupler.** A new solution to an age old problem of connecting conventional aileron pushrod to aileron servo is solved through this simple fitting. As shown in the drawing, the tube is soldered to the pushrod and unit is adjustable through a nylon Snap-Link.

SEE PAGE 259 FOR RETAIL PRICES, TOWER PRICES, AND TOWER STOCK NUMBERS.

### NEW! 3/32" x 1/4"

#### STEERABLE NOSBOEAR

Now you 1/2A modelers can have the steerable nosegear you've long wanted. Plated rugged music wire strut furnished with axle unbent for your own height selection. Complete with steering arm, all mounting hardware, and instructions.

No. 187 (BN332)



### NEW! STRONG 1/16" THREADED COUPLER

Have you ever had a coupler break where the thread adjoins the body? CG Threaded Couplers use a different manufacturing method, making a stronger unit where the thread ends. Two per package, for joining 1/16" wire to clevis.

No. 217 (TC116)





# ACCESSORIES

## GOLDBERG

**NEW!**

### 5/32" NOSEGEAR STRUT with ADJUSTABLE AXLE

Fits CG 5/32" nosegear bearing and most others. Rugged 5/32" nickel-plated music wire with age old hardened axle and socket head screw. No. 166 (NSA-532) 3 reel

### 1/8" NOSEGEAR STRUT

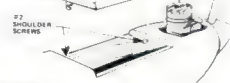
Fits CG 1/8" nosegear bearing and most others. Rugged 1/8" music wire is nickel-plated. No. 166 (NS-180)

Here's the answer to an old problem — how to hold a hatch securely, yet remove it quickly. Our two new nylon hold-down designs snap on and off instantly. The side-action types have tremendous holding power, the end-action is for lighter duty. Adaptable to many applications.

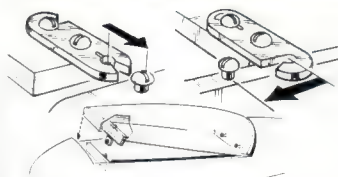


### NEW! ANGLE HOLD-DOWNS

Ideal for attaching hatches, cowls, etc. Small but rugged, with great holding power. Package contains 2 pairs of left and right hold-downs with all screws and instructions. No. 278 (AH1)



### NEW! FLAT HOLD-DOWNS



Permit either side or end-action. Excellent for glider canopies, servo trays, hatches, wing struts, antenna fin clip, etc. Package contains 4 hold-downs with all screws and instructions. No. 277 (FH1)

### 5/32" STEERABLE NOSE GEAR

with ADJUSTABLE AXLE

For large models, long 5/32" music wire strut and adjustable axle. Complete with blind nuts, screws, etc. SNA-532

### 1/8" STEERABLE NOSE GEAR

For medium-size models, 1/8" music wire strut with fixed axle. Complete with blind nuts, screws, etc. SN-180

- Steering Arm alone, SA-180 76¢
- Nosegear Bearing, blind nuts and screws, NB-180

### STRIP AILERON HORN SET

SELF-THREADING HORN BRACKET

THREADED STRIP AILERON HORN

5-3/4"

NYLON TUBING

This simple Strip Aileron Horn Set provides easy adjustment of throw, and long reach torque rods. Can be used with Carl Goldberg Aileron Pushrods. SAH-332

### AILERON PUSHRODS 1/16" WIRE!

SNAP LINK

1/16" PUSHROD

STRIP AILERON USAGE

### DON'T DRILL OUT SERVO ARMS! USE TRUE 1/16" AILERON PUSHRODS

Threaded Rods are usually oversize 1/16", and won't go into Servo Arm holes without drilling. These Aileron Pushrods are TRUE 1/16"! Two of our patented Snap Links and two 7" Rods, AP1

CONVENTIONAL AILERON USAGE

1/16" PUSHROD

SNAP LINK

### 3 WAY FREQUENCY FLAGS

1. FULL SWIVEL
2. FULL COLOR
3. REMOVABLE RIBBONS

NYLON ANTENNA CLIP  
FULL SWIVEL BALL CHAIN

NYLON FLAG CLIP

At last, really effective and beautiful frequency flags! Your choice of 7 popular color combinations. Nylon clips are joined with full-swivelling ball chain for free action. Antenna clip allows full collapse of thin final antenna segment to prevent damage. FP1

### PUSHROD CONNECTORS

LOCK SCREW

PUSHROD

PUSHROD CONNECTOR

FINE GROOVES

NYLON SNAP NUT

Once again, a CG accessory turns a tough, irritating job into a breeze! Our new Pushrod Connector requires NO SOLDERING or PEENING! Tough Nylon Snap Nut snaps easily over fine grooves, yet requires a knife blade to pry it off. Can be re-used over and over. PC1, 2 each

### NYLON SNAP NUTS

Replacement item for CG Pushrod Connector PC-1. Can also be used on 1/16" wire as a retainer by roughing up or pinch grooving wire for good grip. No. 216 (SN-1)

### NYLON LANDING GEAR STRAPS

### WHEEL RETAINING SPRINGS

### NYLON WING SKIDS

### NEW! 4" AND 6" WIDE NYLON REINFORCING TAPE

Extremely tough when applied with epoxy.

6"	wide x 5 ft.	N6
4"	wide x 5 ft.	N4
2 1/2"	wide x 5 ft.	N2
3/4"	wide x 5 ft.	N1

### SHEET METAL SCREWS

LONGER SIZES

#2 x 1/2"  
#4 x 1/2"

Sharp, clean, full-depth threads, hard and strong. Excellent for mounting servos, etc. Includes washers. No. 2 x 1/2" SMS2-50, 10; No. 4 x 1/2" SMS4-50, 8.

SEE PAGE 259 FOR RETAIL PRICES, TOWER PRICES, AND TOWER STOCK NUMBERS.



## HALLCO

### HALLCO Temper-Lock LANDING GEARS



9 SIZES-AVAILABLE!

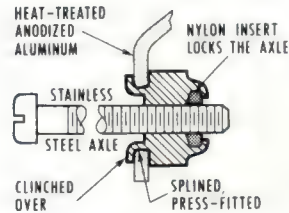
	TOWER STOCK NUMBER	THICKNESS	MOUNTING SURFACE	TREAD WIDTH	HEIGHT	AXLE SIZE	SUGGESTED WEIGHT CAPACITY (lbs.)
MEDIUM DUTY	HAL26051	.040	1.0 x 2.0	7.0	1.8	6-32	Under 1.7
	HAL26052	.050	1.1 x 2.5	8.7	2.0	6-32	1.7 - 2.7
	HAL26053	.060	1.2 x 3.0	10.3	2.4	8-32	2.7 - 3.5
	HAL26054	.080	1.5 x 3.2	12.8	3.2	8-32	3.5 - 4.5
	HAL26055	.100	2.0 x 3.5	15.0	3.9	8-32	4.5 - 6.0
	HAL26063	.080	1.2 x 3.0	10.3	2.4	8-32	3.5 - 4.5
HEAVY DUTY	HAL26064	.100	1.5 x 3.2	12.8	3.2	8-32	4.5 - 6.0
	HAL26065	.125	2.0 x 3.5	15.0	3.9	8-32	6.0 - 8.0
	HAL26066	.125	2.5 x 4.0	18.0	4.8	10-32	8.0 - 10.0

### FEATURES:

\* STAINLESS STEEL AXLES ( FURNISHED ) ARE LOCKED IN POSITION BY THE NYLON INSERT IN THE NUT. NUT IS SPLINED, PRESS-FITTED AND CLINCHED.

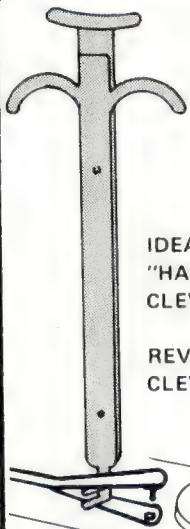
\* THE LANDING GEAR, MADE OF HEAT-TREATED ALUMINUM ALLOY, WILL DEFLECT AND SPRING BACK WITHOUT TAKING A SET.

\* BLACK OR CLEAR ANODIZING PROVIDES IMPROVED APPEARANCE AND CORROSION RESISTANCE. THE ANODIZED SURFACE WILL GIVE IMPROVED ADHESION IF YOU PREFER TO APPLY LACQUER, ENAMEL OR DOPE.



HAL26051	HALLCO MED. 7.0 TREAD #8105-1	4.30	3.95	263
HAL26052	HALLCO MED. 8.7 TREAD #8105-2	4.55	4.20	263
HAL26053	HALLCO MED. 10.3 TREAD #8105-3	5.45	4.95	263
HAL26054	HALLCO MED. 12.8 TREAD #8105-4	6.15	5.65	263
HAL26055	HALLCO MED. 15.0 TREAD #8105-5	7.05	6.35	263
HAL26063	HALLCO Hvy. 10.3 TREAD #8106-3	5.75	5.30	263
HAL26064	HALLCO Hvy. 12.8 TREAD #8106-4	6.40	5.90	263
HAL26065	HALLCO Hvy. 15.0 TREAD #8106-5	8.75	7.85	263
HAL26066	HALLCO Hvy. 18.0 TREAD #8106-6	10.80	9.70	263

## J-C-M

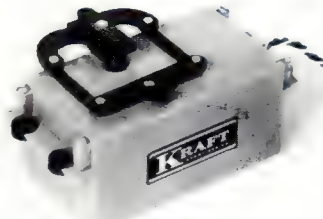


### CLEVIS TOOL

IDEAL FOR ALL THOSE "HARD TO GET AT" CLEVIS INSTALLATIONS

REVERSE ACTION FOR CLEVIS REMOVAL

## KRAFT



Part No. 200-087

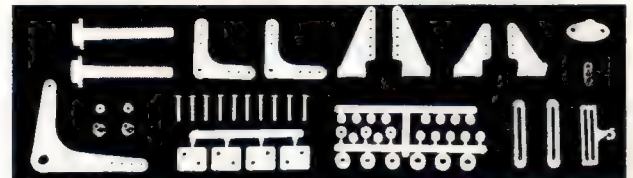
Designed for "V" tails, wings, and powered delta-type aircraft.

### ELEVON LINKAGE KIT

(Operates elevons or flaperons from two KPS-12 servos or a two-channel receiver-servo block.)

Part No. 200-087

### ACCESSORIES ASSORTMENT



2 Extra Long Horns, 2 Regular Horns, 4 Horn Plates, 2 (90°) Bellcranks, 1 Flying Stab Bellcrank, 2 Push Rod Exits, 1 Antenna Flag Clip, 1 Receiver Antenna Clip, 1 (6/32) Nut Plate, 3 (5/32) Push-on Collars, 3 (1/8) Push-on Collars, 3 (3/32) Push-on Collars, 13 (1/16) Push-on Collars, 2 (.045) Push-on Collars, 10 (2-56x1/2) Machine Screws, 2 (2-56) Nuts, 2 Bellcrank Bushings, 2 (1/4-20) Wing Hold Down Nylon Bolts.  
P/N 200-100

### NYLON CLEVIS

Nylon clevis with a durable snap-lock steel pin.

Clevis with 10" steel rod allows for an adjustment of 5/8"

P/N 200-128

P/N 200-131 Clevis only (package of 4)



### HINGES

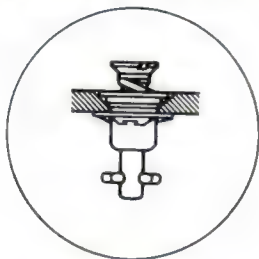
These "live" polypropylene hinges are designed to dampen flutter, withstand high vibration, and to resist gumming from epoxy, glue or dirt. 20 Per Pkg.

P/N 200-105

KRA20C87	KRAFT 200-087 ELEVON LINKAGE	3.98	3.75	263
KRA20100	KRAFT 200-100 ACCESSORY ASST	2.49	2.30	263
KRA20105	KRAFT 200-105 POLY HINGES 20	1.39	1.35	263
KRA20127	KRAFT 200-131 NYLON CLEVIS 4	1.29	1.20	263
KRA20128	KRAFT 200-128 CLEVIS W/ROD	.98	.95	263



## PRATHER NEW TYPE FLUSH FITTING CAMLOC



Flush Camlocks works great for cheek cowl and hatch covers.

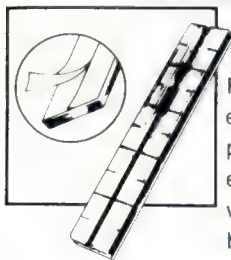
They fit flush and hold securely in place. You do not have to bolt your cheek cowl or hatch covers anymore.

With flush Camlocks, cheek cowl and hatch covers can be removed and replaced in a matter of seconds.

EASY TO INSTALL

Complete with Retainer and Lock Ring

### STICK-ON WEIGHT



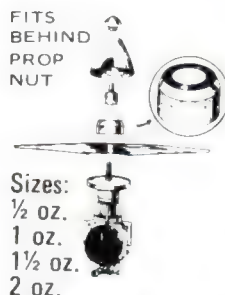
For those hard to get places, no epoxy needed - simply sticks into position. Balancing your plane is easy when you use our stick-on weights. A balanced plane flies better and is easier to handle. A must for every Flying Box.

LEAD

Increments of 1/4 oz. and 1/2 oz. ■ PKG. OF 2  
Strong Stick Tape on Back ■

### NOSE WEIGHT

FOR: R/C • U-CONTROL • FREE FLIGHT



The nose weight replaces the prop washer. You can try different weights easily at the field to get the proper balance for your plane, with or without a spinner.

A balanced plane flies better, and is easier to handle. A must for every flying box.

FITS ENGINES 1/4" DIAM. AND UP

### NYLON COATED STEEL CABLE

This Nylon Coated Steel Cable works great for wheel brake hook ups, retract landing gear steering, and scale plane rigging cable.

### DZUS FASTENER WITH WIRE LOOP



Dzus Fasteners work great for hatch cover and cowls. Comes complete with wire loop.

PRA20105	PRATHER 3010	1/2 OZ. NOSE WT.	1.89	1.80	264
PRA20110	PRATHER 3020	1 OZ. NOSE WT.	2.09	2.00	264
PRA20115	PRATHER 3030	1 1/2 OZ. NOSE WT.	2.09	2.00	264
PRA20120	PRATHER 3040	2 OZ. NOSE WT.	2.19	2.10	264
PRA20260	PRATHER 3050	1/2 OZ. STICK-ON WT.	2.39	2.25	264
PRA21180	PRATHER 4060	FLUSH CAMLOC	1.98	1.90	264
PRA21490	PRATHER 4070	DZUS FASTENERS	1.69	1.60	264
PRA21500	PRATHER 7060	NYLON COATED CABL	1.49	1.40	264

## HIGLEY'S



THE  
BISO BENDER

HARRY'S  
HEAVY HUB



For bending 1/8" inch hard brass tubing without kinking it.

A two ounce prop nut machined from brass, nickel plated, intended to correct a tail heavy condition. 1/4-28 threads.

HIG18100	HIGLEY'S HEAVY HUB 1/4X28	2.59	2.45	264
HIG34100	HIGLEY'S BISO BENDER 1/8X3/32	1.98	1.90	264



## PROCTOR

### HARDWARE

WE MANUFACTURE AND STOCK A LARGE EXPANDING LINE OF SCALE MODEL AIRCRAFT HARDWARE.

SINCE MANY OF OUR FITTINGS AND ACCESSORIES ARE COMPATIBLE WITH BOATS, WE HAVE A LISTING OF SHIPS FITTINGS AS WELL.

WE ORIGINALLY MANUFACTURED THIS HARDWARE FOR OUR OWN SCALE KITS. DEMAND FOR THESE ITEMS HOWEVER FROM OTHER BUILDERS LED TO OUR PACKAGING THE VARIOUS ITEMS FOR SALE.

1/16 DIA. HOLES ARE STANDARD IN MOST OF OUR FITTINGS AND WE WILL ACCEPT OUR SMALL SCREWS AND BOLTS. HOLES MAY BE DRILLED OUT FOR LARGER SIZES AS REQUIRED.

MOST FITTINGS ARE BRASS, A FEW ARE ALUMINUM AND SOME ARE MADE FROM PHENOLIC SHEET.

ALL OF OUR FITTINGS, TURNBUCKLES, PULLEYS ETC., ARE FUNCTIONAL AND RIGGING THE WINGS WITH CABLE IS DONE IN THE IDENTICAL MANNER AS ON A FULL SCALE SHIP.

THE VARIOUS WAYS THAT OUR FITTING MAY BE USED ARE TOO NUMEROUS TO DESCRIBE. WE DO HOWEVER SHOW SOME APPLICATIONS ON THESE SHEETS.

SOME OF OUR PARTS SERVE A DUAL PURPOSE. FOR INSTANCE, OUR AIRCRAFT INSTRUMENT HOUSINGS ARE ALSO USED FOR SHIP PORT HOLES, AND THE TURNBUCKLES ARE USED FOR BOTH AIRCRAFT AND SHIP RIGGING ETC.

STRUT FITTINGS AND CABLE ANCHOR FITTING MAY BE USED INDIVIDUALLY OR STACKED UP AS REQUIRED.

ALL FITTINGS MAY BE EITHER BOLTED OR SCREWED IN PLACE, SEE OUR BOLTS AND SCREWS.

A UNIQUE FEATURE OF THE FITTINGS IS THAT SEVERAL MAY BE BOLTED TOGETHER TO MAKE A COMPLICATED ASSY., WHICH IN TURN CAN BE SCREWED TO THE WING AFTER COVERING IS COMPLETE.

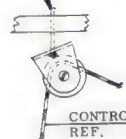
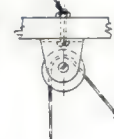
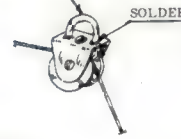
OUR CLEVIS END TURNBUCKLE FIT OVER THE ENDS OF OUR VARIOUS FITTING. THE BULK OF OUR AIRCRAFT FITTINGS ARE FOR 1/2 TO 3" SCALE.

#### SUGGESTED METHODS OF MOUNTING.

BEND LOOP & SOLDER TO PULLEY FRAME.

SOLID MOUNT BOLT IN PLACE WITH #210 BOLT.

MOUNT ON #64 PIN FOR SWIVEL IN ALL DIRECTIONS.



CONTROL CABLE REF.

RIGGING CABLE (25ft.) ROLL #202

SWAGE FITTING #312

THESE SLIP OVER THE CABLE & ARE SQUEEZED FLAT TO LOCK THE CABLE IN PLACE.

PULLEY ASSYS. USED FOR CONTROLS ON AIRCRAFT & BOATS.

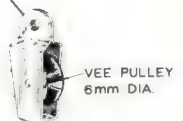
322

REMOVABLE BOLT

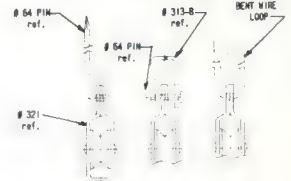


BRASS PULLEY ASSY.

321



BRASS PULLEY ASSY.



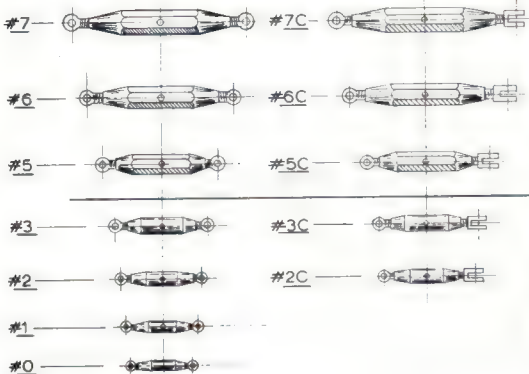
SUGGESTED METHODS FOR MOUNTING #321

#### WORKING TURNBUCKLES

- PRECISION MANUFACTURE
- LEFT & RIGHT HAND THREADS
- BRIGHT BRASS FINISH
- FOR SCALE AIRCRAFT & BOATS

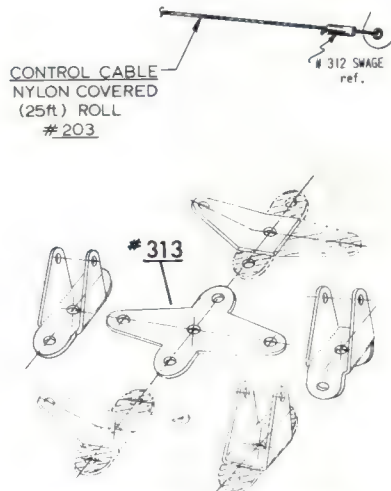
STD. END

CLEVIS END



HEX BODY ONLY

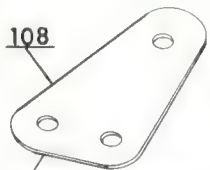
ROUND BODY ONLY



CONTROL CABLE NYLON COVERED (25ft.) ROLL #203

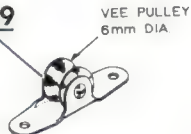
THIS IS OUR #313 UNIVERSAL FITTING THAT MAY BE TRIMMED & FORMED TO 5 DIFFERENT SHAPES AS SHOWN. IT CAN BE USED TO FASTEN THE STRUT TO THE WING & TO ANCHOR THE STRUT CROSS BRACE CABLES ETC.

108



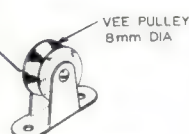
#108 IS A BRASS CABLE ANCHOR FITTING USUALLY USED AT THE INBOARD END OF THE WING TO HOLD TWO CABLES. FORM TO SUIT.

109



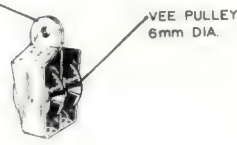
BRASS PULLEY ASSY. FASTEN IN PLACE WITH OUR #210 BOLT OR OX1/4 SCREWS.

110



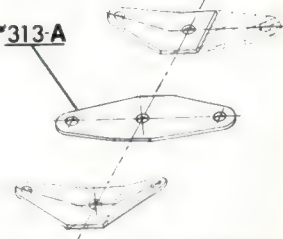
BRASS PULLEY ASSY.

321A



BRASS DOUBLE PULLEY ASSY.

#313-A



FITTING #313A USED AS A CABLE ANCHOR AT STRUT LOCATIONS MAY BE FORMED AND TRIMMED TO SUIT.

PRC2C000	#0 TURNBUCKLE	2	1.95	1.85	265
PRC2C005	#1 TURNBUCKLE	2	2.10	2.00	265
PRC2C010	#2 TURNBUCKLE	2	2.20	2.10	265
PRC2C015	#3 TURNBUCKLE	2	2.40	2.30	265
PRC2C020	#5 TURNBUCKLE	2	2.65	2.55	265
PRC2C025	#6 TURNBUCKLE	2	2.85	2.70	265
PRC2C030	#7 TURNBUCKLE	2	3.10	2.95	265
PRC2C050	#2C TURNBUCKLE	2	2.30	2.20	265
PRC2C055	#3C TURNBUCKLE	2	2.50	2.40	265
PRC2C060	#5C TURNBUCKLE	2	2.75	2.60	265
PRC2C065	#6C TURNBUCKLE	2	2.95	2.80	265
PRC2C070	#7C TURNBUCKLE	2	3.20	3.05	265

PRC20140	#108 CABLE ANCHOR FITTING	2	.75	.70	265
PRC20145	#109 PULLEY ASSEMBLY	1	1.55	1.45	265
PRC20150	#110 PULLEY ASSEMBLY	1	1.55	1.45	265
PRC20210	#202 RIGGING CABLE-25 FT		3.25	3.10	265
PRC20215	#203 CONTROL CABLE-25 FT		3.25	3.10	265
PRC20250	#210 STRUT BOLT & NUT	4	.95	.90	265
PRC20320	#312 SWAGE FITTING	20	1.40	1.35	265
PRC20325	#313 STRUT FITTING	2	.80	.75	265
PRC20326	#313A CABLE ANCHOR FITTING	2	.80	.75	265
PRC20350	#321 PULLEY ASSEMBLY	1	1.60	1.50	265
PRC20351	#321A DOUBLE PULLEY ASSEMBLY	1	1.80	1.70	265
PRC20360	#322 PULLEY ASSEMBLY	1	1.40	1.35	265



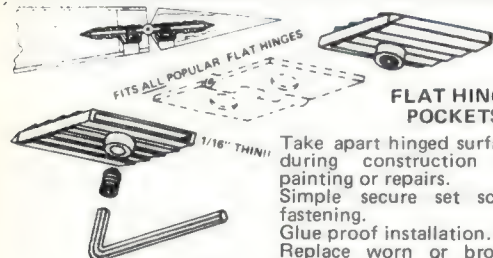
## ROBART

### NEW Hinge Point Pockets



TAKE APART HINGED SURFACES DURING CONSTRUCTION FOR PAINTING OR REPAIRS. SIMPLE, SECURE SET SCREW FASTENING. GLUE PROOF INSTALLATION. REPLACE WORN OR BROKEN HINGES IN SECONDS.

### FLAT HINGE POCKETS

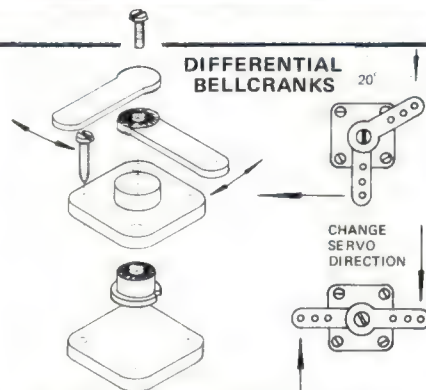


Take apart hinged surfaces during construction for painting or repairs. Simple secure set screw fastening. Glue proof installation. Replace worn or broken hinges in seconds.

### FEED-THRU BELLCRANK

- No bind way to get linkage outside fuselage or boat radio box.
- Sealed to oil or water.
- Totally adjustable.
- Compatible with all trim arms.

### DIFFERENTIAL BELLCRANKS



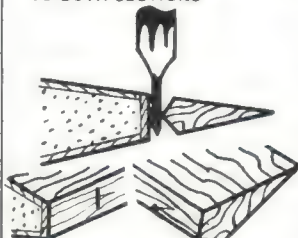
- The ultimate bellcrank--totally adjustable for differential control surface travel.
- POSI--Lock interlocking teeth. No slip assembly.
- Super Sturdy 4 screw mounting with nylon nut plate for reliable threads.
- Trim arms are compatible with this device to achieve any imaginable servo/surface motion requirement.

### hinge point

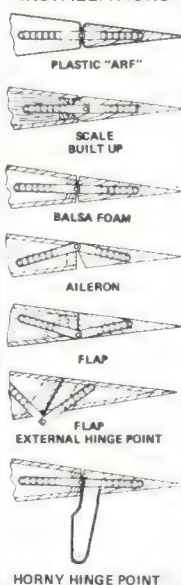
15

- EASIEST TO INSTALL
- PULL-OUT PROOF
- ENDS ALL HINGING PROBLEMS

### 1-MARKING / LINE UP SECTIONS PENCIL MARK TRANSFERS TO BOTH SECTIONS



### TYPICAL INSTALLATIONS



### mini hinge point

15

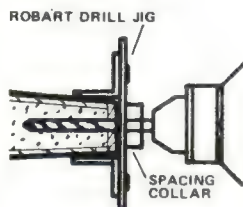
1/2 THE SIZE OF A HINGE POINT. EASY TO INSTALL. DRILL 5/64" HOLE AND INSERT WITH GLUE.

### horny hinge point

4

A HINGE POINT WITH A HORN. EASIEST TO INSTALL. DRILL 1/8" HOLE AND INSERT WITH GLUE.

### 2-DRILLING / DRILL 1/8" HOLE TO DESIRED DEPTH



### 3-ASSEMBLY / COAT POINTS WITH WHITE GLUE OR QUICK EPOXY. ASSEMBLE STATIONARY SIDES FIRST AND ALLOW TO DRY. THEN ASSEMBLE MOVABLE SURFACES.



### NEW Steel Pin Hinge Point

- SAME EASY INSTALLATION AS REGULAR HINGE POINT
- INDESTRUCTIBLE STEEL PIN
- SUPER VERSATILE

### hinge point flats

15

GLUE PROOF INSTALLATION PRICED RIGHT

### TRIM ARM ADAPTORS



### TRIM ARM REDO

In order to make things simpler for everybody, Robart is now packaging their four different types of Servo Trim Arms without the adaptor buttons, and are making the adaptors available separately so that you can match them to the servos that you own.

So in order to incorporate one of the Robart Trim Arms, you have to obtain the proper adaptor for your servos and the desired version of the Trim Arm that you want. No adaptors are furnished with the Trim Arms.

Rather than lowering the price of the Trim Arms less the adaptors, they have doubled the quantity of Trim Arms in each package. Each one of the Trim Arm packages contain 4 arms.

Each of the Trim Arms feature center adjustable without an electrical change, and the ability to obtain offset for aileron or elevator differential. Also make throttle setup much easier.



Robart Standard Trim Arm, 4



Robart Super Trim Arm, 4



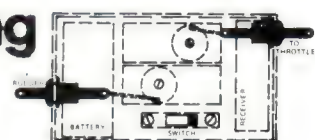
Robart 1/2A Trim/Retract Arm, 4



Robart Dual Trim Arm, 4

### Water Tight Output Bushing


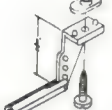


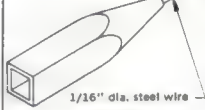
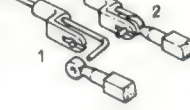
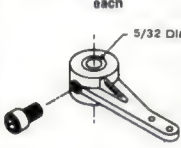
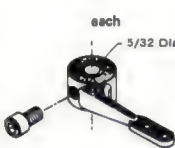




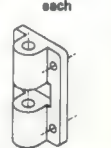


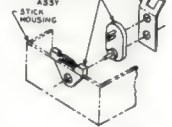
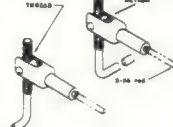
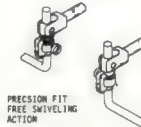






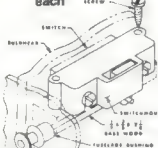
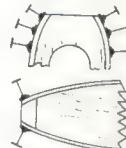
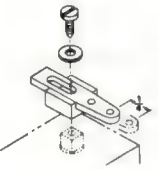
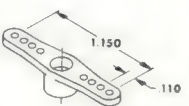
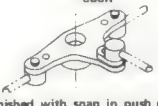

- WATER TIGHT OUTPUT FOR RADIO BOX



KLB20420	KLBART HPP15 HINGE PT. POCKET	2.49	2.35	266
RCB20425	RCBART FHP15 FLAT HINGE POCKET	2.49	2.35	266
RCB24215	RCBART HINGE POINTS 15	2.49	2.35	266
RCB24216	RCBART SUPER HINGE POINTS 15	3.98	3.65	266
RCB24220	RCBART STEEL PIN HINGE POINTS 15	2.49	2.35	266
RCB24315	RCBART MINI HINGE POINTS 15	2.49	2.35	266
RCB24415	RCBART HINGE POINT FLATS 15	2.49	2.35	266
RCB24504	RCBART HORN HINGE POINTS 4	1.49	1.40	266
RCB24610	RCBART WATERPROOF BUSHINGS 2	2.49	2.25	266
RCB28902	RCBART 396 SERVO TRIM ARM 4	1.98	1.90	266
RCB28904	RCBART 397 SUPER TRIM ARM 4	1.98	1.90	266
RCB28906	RCBART 398 1/2A TRIM ARM 4	1.98	1.90	266
RCB28908	RCBART 399 CUAL TRIM ARM 4	1.98	1.90	266
RCB28926	RCBART 386 ADAPTOR-KPS 14615 4	.98	.95	266
RCB28927	RCBART 387 ADAPTOR-KPS1461511 4	.98	.95	266
RCB28928	RCBART 388 ADAPTOR-FUTABA	.98	.95	266
RCB28929	RCBART 389 ADAPTOR-MRC	.98	.95	266
RCB28935	RCBART 395 ADAPTOR-COX/SANWA	.98	.95	266
RCB29100	RCBART DIFFERENTIAL BELLCRANK	2.49	2.35	266
RCB29150	RCBART FEED-THRU BELLCRANK	1.98	1.90	266



## ROCKET CITY

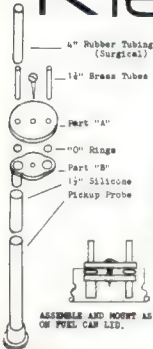
<b>STANDARD CONTROL HORNS</b>  pair  <b>Stock No. 01</b>	<b>MINI CONTROL HORNS</b>  pair  <b>Stock No. 03</b>	<b>EASY ACTION WHEEL BRAKES</b>  pair  <b>Stock No. 04</b>	<b>AILERON LINKS</b>  pair  <b>Stock No. 05</b>	<b>PUSH ROD ENDS</b>  pair  <b>Stock No. 06</b>	<b>PUSH ROD RETAINERS</b>  4 pieces  <b>Stock No. 07</b>	<b>PUSH ROD EXITS</b>  4 pieces  Molded in Colors Red White Blue Yellow Green Black <b>Stock No. 08</b>
<b>STEERING ARM</b>  each  <b>Stock No. 09</b>	<b>STEERING ARM (SHOCK ABSORBING)</b>  each  <b>Stock No. 10</b>	<b>MISSING LINK WITH HARDWARE</b>  each  <b>Stock No. 11</b>	<b>MISSING LINK WITHOUT HARDWARE</b>  2 pieces  <b>Stock No. 12</b>	<b>SUPER-FLEX NYLON HINGE</b>  5 pieces  <b>Stock No. 21</b>	<b>WING BOLTS 1/4-20</b>  pair  <b>Stock No. 22</b>	<b>NOSE GEAR BRACKET</b>  each  <b>Stock No. 25</b>
<b>STICK TIPS (KRAFT)</b>  pair  <b>Stock No. 26</b>	<b>ANTENNA EXIT</b>  4 pieces  <b>Stock No. 27</b>	<b>THROTTLE DETENT (KRAFT)</b>  each  <b>Stock No. 28</b>	<b>AILERON SWIVEL LINKS WITH THREADED HORNS</b>  pair  <b>Stock No. 29</b>	<b>AILERON SWIVEL LINKS WITH NON-THREADED HORNS</b>  pair  <b>Stock No. 34</b>	<b>AILERON SWIVEL LINKS WITHOUT HORNS</b>  pair These are the same as No. 29 and can be used on horns that have No. 4-40 thread. <b>Stock No. 69</b> These are the same as No. 34 and can be used on horns that are 3/32" dia. <b>Stock No. 39</b>	<b>SAFETY BACK RAZOR BLADES</b>  8 pieces  <b>Stock No. 30</b>
<b>NEW! HEAVY DUTY BALL LINK</b>   We hope this ball link will fill a need in the larger collective pitch helicopters and the 1/4 scale planes. The nylon is molded around the precision ground ball for a life time zero tolerance fit. We have added 50% more material around the ball than our regular "Missing Link" also we increased the body diameter and tapered it out for a 4-40 push rod. The hole in the ball will fit a #2 screw. <b>No. 77</b>	<b>WING BOLTS 1/4-20 OVAL HEAD</b>  pair  <b>Stock No. 35</b>	<b>WING BOLTS 10-24 OVAL HEAD</b>  pair  <b>Stock No. 36</b>	<b>EPOXY BRUSHES</b>  6 pieces  <b>Stock No. 37</b>	<b>WING CUSHION TAPE 1/8 x 1/4 x 36.00"</b>  1 yard  <b>Stock No. 38</b>	<b>INTERNAL SWITCH MOUNT</b>  each  <b>Stock No. 54</b>	<b>PIN CLAMP</b>  28 pieces  <b>Stock No. 55</b>
<b>ADJUSTABLE SERVO ARM</b>  each  <b>Stock No. 44 KPS-11</b> <b>Stock No. 45 KPS-12</b> <b>Stock No. 46 KPS-14 &amp; 15</b> <b>Stock No. 64 KPS-14 &amp; 15-11</b>  <b>Stock No. 56 EK</b> <b>Stock No. 47 World Eng.</b>	<b>SERVO OUTPUT ARMS</b>  2 pieces  <b>Stock No. 76 KPS-18</b> <b>Stock No. 60 KPS-14 &amp; 15</b> <b>Stock No. 63 KPS-14 &amp; 15-11</b> <b>Stock No. 82 Futaba</b> <b>Stock No. 61 World Eng.</b> <b>Stock No. 66 EK</b>		<b>RETRACT ARM</b>  each  Furnished with snap in push rod holders. Choice of 2 different throws. Outer holes 1-1/16" throw. Inner holes 13/16" throw. <b>Stk. No. 71 for KPS 14 &amp; 15 II</b>	<b>THROTTLE OVERRIDE DEVICE</b>  each  <b>Stock No. 52 KPS 14 &amp; 15</b> <b>Stock No. 65 KPS 14 &amp; 15-11</b>	<b>QUICK MOUNT SERVO TAPE</b>  1 yard 1/8" x 1/2" wide <b>Stock No. 14</b>  4 feet 1/16" x 1/2" wide <b>Stock No. 75</b>	

RCS20004	ROCKET CITY #04 WHEEL BRAKES	3.00	2.80	373	RCS28045	ROCKET CITY #45 ARM KPS-12	.98	.95	267
RCS20026	ROCKET CITY #26 STICK TIPS KRA	.59	.55	267	RCS28046	ROCKET CITY #46 ARM KPS-14&15	.98	.95	267
RCS20027	ROCKET CITY #27 ANTENNA EXIT	.59	.55	267	RCS28047	ROCKET CITY #47 ARM WORLD ENG.	.98	.95	267
RCS20028	ROCKET CITY #28 THROTTLE DETENT	1.29	1.15	267	RCS28052	ROCKET CITY #52 OVRD KPS-14&15	.98	.95	267
RCS20030	ROCKET CITY #30 RAZOR BLADES	.79	.75	267	RCS28056	ROCKET CITY #56 ARM EK	.98	.95	267
RCS20037	ROCKET CITY #37 EPOXY BRUSHES-6	.98	.95	267	RCS28060	ROCKET CITY #60 ARMS KPS 14&15	.98	.95	267
RCS20038	ROCKET CITY #38 WING TAPE	.59	.55	267	RCS28061	ROCKET CITY #61 ARMS WORLD ENG.	.98	.95	267
RCS20054	ROCKET CITY #54 SWITCH MOUNT	1.29	1.15	267	RCS28063	ROCKET CITY #63 ARMS KPS 14&15 II	.98	.95	267
RCS20055	ROCKET CITY #55 PIN CLAMP	.59	.55	267	RCS28064	ROCKET CITY #64 ARMS KPS 14&15 II	.98	.95	267
RCS23006	ROCKET CITY #06 PUSH ROD ENDS	.79	.75	267	RCS28065	ROCKET CITY #65 OVRD KPS 14&15 II	.98	.95	267
RCS23007	ROCKET CITY #07 RETAINERS	.59	.55	267	RCS28066	ROCKET CITY #66 ARMS EK	.98	.95	267
RCS23008	ROCKET CITY #08 PUSH ROD EXITS	.59	.55	267	RCS28071	ROCKET CITY #71 ARM KPS 14&15 II	1.29	1.25	267
RCS23077	ROCKET CITY #77 H.C. BALL LINK	.98	.95	267	RCS28075	ROCKET CITY #75 SERV TAPE 1/16	.98	.95	267
RCS24021	ROCKET CITY #21 NYLON HINGE	.59	.55	267	RCS28076	ROCKET CITY #76 ARMS KPS-18	.98	.95	267
RCS25011	ROCKET CITY #11 MISSING LINK	.79	.75	267	RCS28082	ROCKET CITY #82 ARM-FUTABA	.98	.95	267
RCS25012	ROCKET CITY #12 LINK LESS HDWE	.79	.75	267	RCS29001	ROCKET CITY #01 STANDARD HORNS	.59	.55	267
RCS26009	ROCKET CITY #09 STEERING ARM	.79	.75	267	RCS29003	ROCKET CITY #03 MINI HORNS	.79	.75	267
RCS26010	ROCKET CITY #10 STEERING ARM	.79	.75	267	RCS29005	ROCKET CITY #05 AILERON LINKS	.79	.75	267
RCS27022	ROCKET CITY #22 BOLTS 1/4-20	.79	.75	267	RCS29025	ROCKET CITY #25 BRACKET NOSE	.59	.55	267
RCS27035	ROCKET CITY #35 BOLTS 1/4-20	.79	.75	267	RCS29029	ROCKET CITY #29 SWIVEL LINKS	1.59	1.45	267
RCS27036	ROCKET CITY #36 BOLTS 10-24	.59	.55	267	RCS29034	ROCKET CITY #34 AIL LINKS N/TH	1.59	1.45	267
RCS28014	ROCKET CITY #14 SERVO TAPE 1/8	.98	.95	267	RCS29039	ROCKET CITY #39 LINKS W/O HORN	1.29	1.20	267
RCS28044	ROCKET CITY #44 ARM KPS-11	.98	.95	267	RCS29069	ROCKET CITY #69 SWIV W/O HORNS	.98	.95	267



## SONIC-TRONICS

### Kleen-Fil



**THE FILTERED FUEL PROBE ASSEMBLY - EVERY FUEL CAN NEEDS IT!**

Kleen-Fil keeps dirt out of your fuel and the can stays closed at all times to prevent evaporation and spilling.

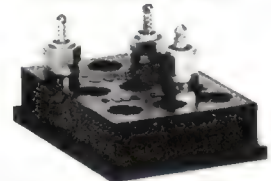
No. 253

### FREQUENCY FLAG For R/C Transmitter.



One kit makes the flag for any frequency in a band. Streamers are 18" long of high visibility ribbon. Attaches quickly and easily to the transmitter antenna with a molded nylon clip.

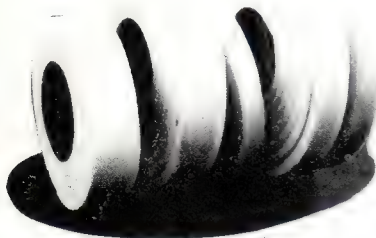
### GLOW-PLUG "CADDIE"



No. 260

Keeps up to 9 glow plugs organized and protected. Comes equipped with instant mount for quick attachment to field box.

### Modeling Tapes



#### White Vinyl Seating Tape

1/16" x 1/4" x 36" No. 230  
1/8" x 3/8" x 36" No. 231  
1/8" x 1/4" x 36" No. 232

#### White Vinyl Mounting Tape

1/16" x 1/2" x 36" No. 235  
1/8" x 1/2" x 36" No. 236

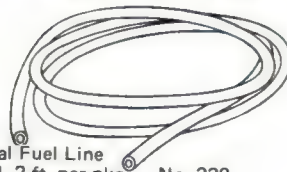
#### Heat Shrink Tape

3/8" x 20 ft. No. 238

#### Fiberglass Tape

1 1/2" x 60" No. 255  
3" x 60" No. 256  
6" x 60" No. 257

### Fuel Line



**Surgical Fuel Line**  
Small, 2 ft. per pkg. No. 220  
Large, 2 ft. per pkg. No. 221  
Super, 2 ft. per pkg. No. 222

**Gasoline & Deisel Fuel Line**  
For Quadra, 2 ft. per pkg. No. 224

**Silicone Fuel Line**  
Small, 2 ft. per pkg. No. 225  
Large, 2 ft. per pkg. No. 226  
Large, 30 ft. roll No. 226R

**Super Silicone "X" Fuel Line**  
Small, 2 ft. per pkg. No. 228  
Large, 2 ft. per pkg. No. 229

**Special Silicone Fuel Line Kit**  
3 ft. of 5/32" ID Tubing & probe No. 251

### RUBBER SERVO GROMMETS



Small - No. 245  
Large - No. 246

### NiTy Pins

Made from high strength chrome plated steel in a new rectangle shape that resembles a carpenter's cut nail and reduces splitting with increased holding power. Approx. 100 pins per package.



Large  
No. 270

Medium  
No. 272

Small  
No. 271

### Protec-A-Pac



No. 240

A complete kit of material to protect your radio from vibration and impact damage. Contains one square foot of special air cell and foam material. Enough for three or more installations.

STR20230	SONICTRONICS	#230	SEATING 1/16	.85	.80	268
STR20231	SONICTRONICS	#231	SEATING 3/8	.95	.90	268
STR20232	SONICTRONICS	#232	SEATING 1/4	.90	.85	268
STR20235	SONICTRONICS	#235	MOUNTING 1/16	.99	.95	268
STR20236	SONICTRONICS	#236	MOUNTING 1/8	1.09	1.05	268
STR20238	SONICTRONICS	#238	SHRINK TAPE	1.45	1.35	268
STR20240	SONICTRONICS	#240	PROTEC-A-PAC	1.69	1.60	268
STR20255	SONICTRONICS	#255	TAPE 1 1/2	.95	.90	268
STR20256	SONICTRONICS	#256	TAPE 3 IN.	1.49	1.40	268
STR20257	SONICTRONICS	#257	TAPE 6 IN.	2.29	2.15	268
STR20260	SONICTRONICS	#260	PLUG CACCIE	1.49	1.40	268
STR20270	SONICTR.	#270	T PINS LARGE 100	1.98	1.90	268
STR20271	SONICTR.	#271	T PINS SMALL 100	1.29	1.25	268
STR20272	SONICTRCS	#272	T PINS MED. 100	1.59	1.50	268
STR20281	SONICTRONICS	#281	72/75 FLAGS	.99	.95	268
STR28245	SONICTRONICS	#245	GROMMETS SM.	.60	.55	268
STR28246	SONICTRONICS	#246	GROMMETS MED	.60	.55	268
STR54252	SONICTRONICS	#252	BIG SHOT ROZ	3.99	3.65	334
STR54253	SONICTRONICS	#253	KLEEN-FIL	1.95	1.85	334
STR55220	SONICTRONICS	#220	SURGICAL SM.	.75	.70	334
STR55221	SONICTRONICS	#221	SURGICAL LG.	.85	.80	334
STR55222	SONICTRONICS	#222	SURGICAL SUP	.95	.90	334
STR55225	SONICTRONICS	#225	SILICONE SM.	.90	.85	334
STR55226	SONICTRONICS	#226	SILICONE LG.	.99	.95	334
STR55228	STR #228	GOLD SILICONE SM.-2FT		1.25	1.20	334
STR55229	STR #229	GOLD SILICONE LG.-2FT		1.39	1.30	334
STR55251	SONICTRONICS	#251	FUELLINE KIT	1.99	1.90	334
STR55326	SONICTRONICS	#226R	30 ROLL LG	12.95	10.95	334

### BIG SHOT



The 8 oz. Fuel Bulb

No. 252

Adapts to all fuel cans, Pints, Quarts, or Gallons.



## SU-PR-LINE



INSIST ON THESE PUSH RODS BY NAME

### SU-PR-ROD™ THE 44" FLEXIBLE PUSH ROD

- WITH MORE "PUSHABILITY"
- COMPLETE WITH ALL HARDWARE
- 44 INCHES ASSEMBLED LENGTH
- SMOOTH SURFACES — NO RIBBING TO ACCUMULATE OIL AND DIRT
- SATISFIES ALL PUSH ROD REQUIREMENTS DOWN TO A 3 1/2" RADIUS



HARDWARE INCLUDED — 1—Su-Pr-KLEVIS • 1—Su-Pr-KEEPER • 1—NYRODapter  
CAT. S-ROD 8" ROD WITH 2-56 THREADED END

### ProROD™ THE RIGID PUSH ROD

- TWO COMPLETE SETS WITH ALL HARDWARE
- SELECTED PREDRILLED HARDWOOD RODS
- ASSEMBLES IN MINUTES
- NO GLUING REQUIRED
- 36 INCHES LONG, ASSEMBLED LENGTH



HARDWARE INCLUDED — 2—12" ProRODapters • 2—4" NYRODapters  
2 PER PKG. 2—Su-Pr-KEEPERS • 2—Su-Pr-KLEVIS  
CAT. P-ROD 2—SLOTTED COUPLERS

### NYROD® THE ORIGINAL Flexible PUSH ROD

REVOLUTIONIZED PUSH ROD SYSTEMS 10 YEARS AGO

- COMPLETE WITH ALL HARDWARE
- IDEALLY SUITED FOR ANY PUSH ROD ACTION. RUDDERS, ELEVATORS, AILERONS, THROTTLE BOATS, SEA PLANES... YOUR IMAGINATION
- 34 INCHES LONG, ASSEMBLED LENGTH

PUSH ROD FAVORITE FOR NEARLY A DECADE



HARDWARE INCLUDED — 1—NYRODapter • 1—Su-Pr-KEEPER  
CAT. NYROD 1—Su-Pr-KLEVIS • 1—2-56STUD  
1—2-56 JAM NUT  
8" ROD WITH 2-56 THREADED END

### MASTEROD® THE Flexible Cable PUSH ROD

- COMPLETE WITH ALL HARDWARE
- CONTAINS FLEXIBLE CABLE AND TUBING
- SATISFIES ALL PUSH ROD REQUIREMENTS TO TWO INCH RADIUS
- FLEXIBLE AND POSITIVE
- 36 INCHES LONG, ASSEMBLED LENGTH



HARDWARE INCLUDED — 1—4" SECTION 1/16" WIRE  
CAT. M-ROD 1—2-56 THREADED COUPLER • 1—Su-Pr-KLEVIS  
1—Su-Pr-KEEPER • 1—SLOTTED COUPLER

### MASTEROD®-XF THE Extra Flexible Cable PUSH ROD

- COMPLETE WITH ALL HARDWARE
- CONTAINS FLEXIBLE CABLE AND TUBING
- SATISFIES ALL PUSH ROD REQUIREMENTS TO 1/2" INCH RADIUS
- FLEXIBLE AND POSITIVE
- 36 INCHES LONG, ASSEMBLED LENGTH



HARDWARE INCLUDED — 1—4" SECTION 1/16" WIRE  
CAT. XF-ROD 1—2-56 THREADED COUPLER • 1—Su-Pr-KLEVIS  
1—Su-Pr-KEEPER • 1—BRASS COUPLER

#### THREADED BRASS COUPLERS

DESIGNED FOR 1/16" WIRE AND CABLE

- 1-1/4" LONG
- 2-56 THREADS
- 1/16" DIA. HOLE

3 PER PKG. BC

#### Su-Pr-KLEVIS with 2-56 STUDS and JAM NUT



- NO TOOLS REQUIRED TO PRY APART
- DOESN'T OPEN UNDER VIBRATION
- UNIQUE DESIGN RESISTS PIN BREAKAGE

THE PROVEN NYLON KLEVIS

2 PER PKG. KVS

#### Su-Pr-KEEPER

INSTALLS WITH A SNAP AFTER ALL LINKAGES HAVE BEEN ASSEMBLED

THE IDEAL KEEPER FOR 1/16" WIRE FITTINGS

- QUICK CONNECT
- QUICK DISCONNECT

3 PER PKG. KPR

#### NYRODapters

THE THREADED ROD FOR ALL SERVO OUTPUT ARMS

- 1/16" PRECISION GROUND ROD
- 4" LONG, 2-56 THREADS

4 PER PKG. NY

#### STUDS and NUTS



2-56 THREADS CUSTOM FITTINGS FOR NYRODS and Su-Pr-RODS

4 PER PKG. SN

#### NYRODapters STUDS & NUTS



FITS NYRODS and Su-Pr-RODS

NSN

#### ProRODapters and COUPLERS

BOTH ENDS THREADED 12 INCHES LONG 2-56 THREADS

IDEAL FOR SHORT COUPLINGS, GEAR, FLAPS, STRIP AILERONS, THROTTLE, ETC.

2 PER PKG. PR

SPL23101	SU-PR-LINE M-ROD MASTEROD	1.69	1.60	269
SPL23102	SU-PR-LINE XF-ROD MASTEROD-XF	1.69	1.60	269
SPL23201	SU-PR-LINE 34 IN. NYROD	1.59	1.50	269
SPL23301	SU-PR-LINE P-ROD PROROD	1.98	1.85	269
SPL23401	SU-PR-LINE S-ROD SU-PR-ROD	1.69	1.60	269
SPL25901	SU-PR-LINE PR PRORODAPTERS	.59	.55	269
SPL25903	SU-PR-LINE SN STUD&NUTS 256	.49	.45	269
SPL25904	SU-PR-LINE KVS SU-PR-KLEVIS	.79	.75	269
SPL25905	SU-PR-LINE KPR SU-PR-KEEPERS	.69	.65	269
SPL25906	SU-PR-LINE NY NYRODAPTERS	.59	.55	269
SPL25907	SU-PR-LINE NSN NYRODSTUDNUT	.49	.45	269
SPL25909	SU-PR-LINE BC COUPLERS 256	.59	.55	269



## ACCESSORIES

GOLD-N-PUSH ROD KITS (Plastic Type)	
GRF 36	Flexible: 36" Long — 2 Sets
GRF 48	Flexible: 48" Long — 2 Sets

**Gold-N-Push Rods** reduce elongation by 75% over nylon push rods now in use. Elongation is a problem to the R/C Flyer, because he must make adjustments in his controls at various temperature changes.

**Gold-N-Push Rods** are 75% more stable at temperatures up to 180°, which greatly exceeds conditions that any model airplane would encounter.

**Gold-N-Push Rods** are golden-coated to avoid confusion with nylon push rods, and also are packaged in 36" and 48" straight lengths in plastic bags.

SUL23036	SULLIVAN GOLD-N-ROD FLEX GRF36	1.60	1.50	270
SUL23048	SULLIVAN GOLD-N-ROD FLEX GRF48	1.80	1.60	270

## SULLIVAN

Gold-N-Push Rods... The Original Temperature Stabilized Rods

ONLY 8 CONTACT POINTS FOR FRICTIONLESS FIT IN TUBE



REDUCES INTERNAL BINDING CAUSED BY OIL & DUST

Patent No. 3,657,942

### Patented No-Clog Feature

These are the push rods that beat the clog, that annoying accumulation of dust and oil. The patented splines on the inner rod cut right through that mess, eliminating the binding so common to other smooth push rods. And don't worry about elongation, either. Gold-n-Push Rods are the original temperature compensated push rods. We put two push rods in every package and shipping costs down. Why should you pay for unnecessary packaging material? Pylon Brand always finds ways to save you money.

## TOWER HOBBIES

### RUBBER BANDS

We carry three sizes of quality rubber bands packed in 1/4 pound packages for your convenience.

**Size #64**—for .35-.78 power planes

**Size #62**—for .10-.35 power planes

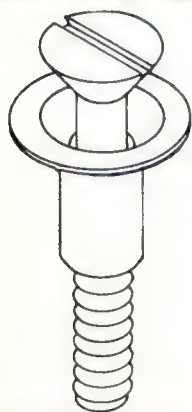
**Size #32**—for .09 and smaller planes

These are perfect for securing your wing or dural landing gear.



TCW20032	TOWER RUBBER BANDS 1/4LB #32	1.50	1.10	270
TCW20062	TOWER RUBBER BANDS 1/4LB #62	1.50	1.10	270
TCW20064	TOWER RUBBER BANDS 1/4LB #64	1.50	1.10	270

## CAPTIVE WING BOLTS



- THESE 1/4"x20 BOLTS STAY IN THE WING AFTER IT'S REMOVED FROM THE FUSELAGE.
- AIRCRAFT TYPE FLUSH HEAD BOLTS. NO MORE UNSIGHTLY BOLT HEADS STICKING OUT OF THE WING.
- EASILY INSTALLED IN THE AIRPLANE YOU'RE NOW FLYING.
- 2" NYLON BOLTS CAN BE EASILY CUT TO ANY LENGTH.
- LARGE CONTACT AREA ELIMINATES CRUSHING.
- IDEAL FOR 1/4 SCALE
- THREAD LENGTH IS CONTROLLED TO PROVIDE 3/8" FREE VERTICAL TRAVEL.



IF A SHORTER BOLT LENGTH IS DESIRED, BOLTS MAY BE CUT WITH A RAZOR SAW. TRIM THE THREAD END WITH AN X-ACTO KNIFE AS PER DRAWING.

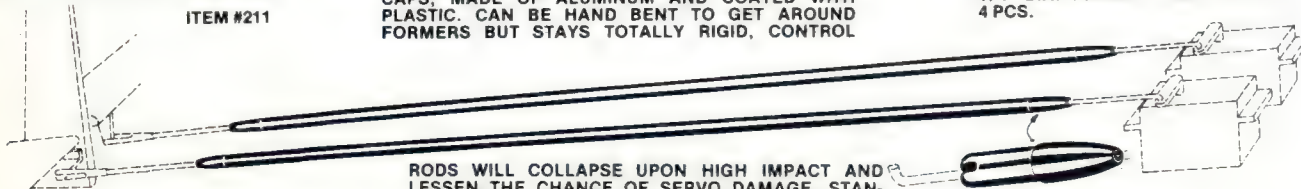
## WING MFG. CO.

### RC CONTROL RODS

ITEM #211

LIGHT-WEIGHT CONTROL ROD WITH MOLDED END CAPS, MADE OF ALUMINUM AND COATED WITH PLASTIC. CAN BE HAND BENT TO GET AROUND FORMERS BUT STAYS TOTALLY RIGID, CONTROL

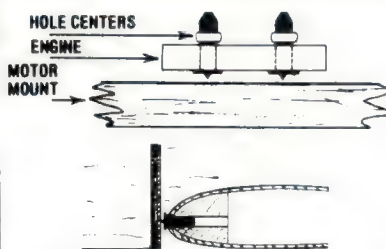
MOLDED END CAPS AVAILABLE SEPARATELY AND WILL ACCEPT 1/4" DIA. TUBING. ITEM #211-A 4 PCS.



RODS WILL COLLAPSE UPON HIGH IMPACT AND LESSEN THE CHANCE OF SERVO DAMAGE. STANDARD LENGTH IS 23" AND END CAPS ACCEPT 1/16" DIA. THREADED OR UNTHREADED END RODS.

4 Pieces

## VORTAC



**HOLE CENTER**—Now there's an easy way to locate and mark 6/32 engine mount bolt holes and 1/4-inch wing dowel holes. Drill jigs and templates don't always fit into the available space and they only fit one particular engine. Vortac's new Precision Steel Hole Center Set contains four small Hole Centers, four

retainers and two 1/4-inch Hole Centers. The four small centers are placed in the engines mounting holes and held with the retainers. The engine is then centered and pressed against the engine mounts, simultaneously marking all four holes by leaving small punch marks. These same centers can also be used to locate and mark firewall bolt holes for aluminum and nylon engine mounts. Engines with smaller bolt holes can be easily drilled out for 6/32 bolts. One set of Precision Steel Hole Centers can be used on any engine from 19cc to 60cc. The 1/4-inch Hole Centers are used to locate wing dowel holes in bulkheads and can be used for larger diameter dowels.

• AUTOMATICALLY PROVIDES MINIMUM (1/64" NOMINAL) HINGE GAP.

• NO MORE GLUED TOGETHER HINGES.

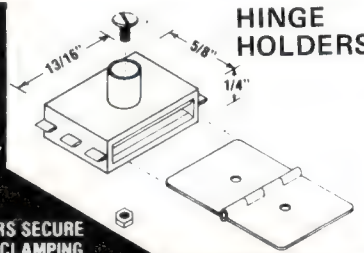
• DAMAGED AND WORN HINGES CAN BE EASILY REPLACED.

• HINGE HOLDERS ACCEPT KLETT, DUBRO, SIG. AND GOLDBERG REGULAR HINGES. (MAY BE EASILY MODIFIED FOR SMALL (MINI) HINGES.)

• STRONGER THAN Balsa. HINGE HOLDERS SECURE YOUR HINGES WITH A STEEL BOLT AND CLAMPING ACTION. THEY DON'T ALLOW ANY HINGE PLAY.

• YOU CAN INSTALL A HINGE HOLDER IN THE SAME TIME IT TAKES TO INSTALL A HINGE. AND YOU'LL BE ABLE TO REMOVE THE HINGE ANY TIME, SIMPLY BY REMOVING A BOLT.

• ALL THAT SHOWS IS A 2/56 BOLT HEAD, FLUSH WITH THE SURFACE.



VCR20000	VORTAC CAPTIVE WING BOLTS-2	1.89	1.80	270
VCR20415	VORTAC HINGE HOLDERS-15	4.98	4.50	270
VCR20510	VORTAC HOLE CENTERS	2.98	2.85	270

WIN20211	WING 2 CONTROL RODS #211	4.50	4.15	270
WIN20212	WING 4 ROD END CAPS #211A	2.00	1.90	270



## Adhesives

Adhesives, or "glues", are the stuff that hold our models together in the air. These substances are known for the fact that they bond, or cause the various parts to adhere to each other, hence the name. The types of materials that can be joined, the strength of the joint (also called the "bond"), and the working characteristics vary because of the chemical properties of each type of adhesive. There are six basic types of adhesives used in R/C Modeling: the acetates, the cyanoacrylates, the epoxies, the "white" glues, contact cements, and the silicon adhesives.

**Acetates:** These are the very familiar "model airplane" glues. Due to the solvents in the glue, which evaporate while drying, they cast off a very strong odor. These glues are fine for light models, but with the strength requirements of our present models, they are not strong enough. They work finely for joints that do not carry a lot of strength, but which must be sanded or carved. Because of the solvents which evaporate, they must be used in a well-ventilated area away from any fire or flame, as they are very flammable, and breathing of the vapors can cause severe illness. (Ambroid)

**Cyanoacrylates:** These are the "hot", or "instant" glues. They are great for bonding almost anything together in a short time. They produce a bond with unbelievable strength, in such a ridiculously short time that they were regarded with suspicion when they were first introduced into the hobby field. Usage with excellent results broke the barrier of reluctant modelers, and they are now considered a vital part of any modeler's adhesive supplies.

The time required for these glues to harden, or "set", varies with the formula, but we usually find that they take either about ten or thirty seconds. The ten-second variety is the most popular, but care should be taken when these glues are used. They are of a very low viscosity, and as such, should be used only when the joint is very tight. A gap is impossible for the glue to fill, alone. A filler such as micro-balloons or baking powder put into the gap before the glue is applied will allow the glue to bond in the gap. When you make a normal joint, put the parts together first, and then apply a drop at the edges of the joint. The glue will run into the joint and form the bond.

The thirty-second variety is used where the rapid set time is not needed, or desired. It is just as strong, and has some gap-filling ability as its viscosity is quite high ... about the same as thick pancake syrup. With this type, you have a little time during which you can adjust the parts to get the proper fit.

Because both of these adhesives have an affinity for bonding with human skin, you should be extra careful when using these products. The ten-second variety will bond skin instantly, and you'll have some trouble separating the affected members. The instructions for these adhesives contain the procedures for proper use, and what to do if you accidentally bond yourself to yourself. These adhesives are not recommended for use by children without very close adult supervision! With proper use and care, however, they are very safe to use, and are among the strongest adhesives you can find. (Hot Stuff, Zap, X-30).

**Epoxies:** Epoxies are two-part glues that feature various setting times with incredible strength. Anyplace you need a bond that is subject to high stress, fuel, and general abuse (such as the tail feathers of your bird), the epoxy is your glue. The set times are usually five-minutes, fifteen-minutes, and forty-five-minutes. The longer the setting time, the stronger the bond, as the glue is better able to "grab" onto the wood.

Typically, they are two-part adhesives, although some are now coming advertised as "one-part, epoxy-based adhesive". One part is the epoxy-base resin, and the other is the hardener. They are mixed in the proportions recommended by the manufacturer, and applied to the pieces being joined. Clamp the pieces in place, and wait for the glue to cure. When it is hardened, you'll have a virtually indestructible joint (although the wood adjacent to the joint may fail under stress ... a good reason for as large a bonding surface as possible).

Epoxies will bond to almost anything, except some plastics, and produce a permanent, strong bond. Their set time is long enough to allow positioning of the parts into their proper relationships. They are also impervious to the ravages of the nitromethane in our fuels. One thing to remember, though ... epoxy glues are heavy, and their use should be rationed carefully, even though the model could be assembled faster with a short-cure epoxy, it will be lighter if you use another

type of glue for all of the construction except for the high-stress joints.

The joints that require epoxy are not very large in number, but very essential in their strength. They are firewall-to-fuselage, wing-center joints, landing gear blocks, horizontal and vertical tail surfaces. Epoxy is also excellent for using to fuel-proof the fuel tank compartment, the engine compartment, and for bonding the center-section fiberglass cloth strapping on some wings. (Devcon, Hobbypoxy, GMP, Southern R/C)

**"White" glues:** The "white" glues, as they are called by modelers, include the regular casein-based glues such as Elmer's, and Wilhold "Glu-bird" white glue, and the aliphatic resin types, such as: Titebond, and Wilhold Aliphatic resin glue. Primarily, the aliphatic resin types are used in modelling as they offer superior strength and better moisture-proofing than the standard "white" glues.

These glues are designed primarily for bonding wood to wood. Because wood absorbs moisture very rapidly, you need a glue that can take advantage of this feature, especially since balsa wood is especially porous. Since these glues work best on wood, offer a very strong bond, and are non-toxic, with no offensive smell, they are recommended for use in all of your general construction. The time need for the glue to cure is a small price to pay when you are giving yourself the best possible chance for your model to stay together. Some people using the cyanoacrylates have been using them to join the pieces together, and then using a white glue to "reinforce" the joint are really just wasting their time. You'll still have to wait for the glue to dry ... use the "hot" glues to tack the pieces in place, to eliminate some clamping.

Do not use these glues for laminations, because the water in the Glue will be absorbed by the wood, and will cause it to curl. You can use this for laminations, but you'll have to clamp every part of the pieces to be joined, and then you may still get a finished assembly that is warped. (Titebond, Wilhold).

**Contact cements:** Contact cements are adhesives designed for bonding pieces in laminated structures. In use, the glue is applied to both surfaces to be joined, and allowed to dry. When the glue is dry, the pieces are pressed together. Even though the adhesive is dry, the glued areas bond on contact ... hence the name.

Once stuck, though, you cannot move the joined parts if you've gotten them misaligned. You must make sure that the pieces are carefully aligned before you put them together. Note, though, that some contact cements will attack some substances — see the instructions for details.

Contact cements are quite strong, but only if they can be used over a large area. This makes them excellent for lamination, but terrible for almost any other joint. Many people have used contact cement while applying sheeting to built-up, wood wings. *DON'T!* You are sacrificing a tremendous amount of strength just to save a little time. The small area of each rib is insufficient for a good bond ... use a stronger glue: epoxy, cyanoacrylate, or "white" glue. (Goldberg "Blue Goo", Southern R/C "Sorghum," Wilhold spray adhesive).

**Silicon adhesives:** These are adhesives that have been around for quite some time. It is basically an air-curing silicon rubber. Due to the nature of its substance, it can be used for a tremendous number of tasks. It can be pigmented, and comes in a variety of colors. In fact, if you get it in white, it is usually called, "Silicon Rubber Bathtub Caulk." Clear, it's called "RTV" for radio-television use (as insulation and shock-absorbing use). Its best applications are for holding nylon pushrods in place (Nyrods, Gold-N-Rods, Kwik-Rods), throttle cables, for sealing wing joints, holding servo rails in place, and various other holding or sealing tasks.

While it is by no means the strongest adhesive available, it will adhere to almost anything, including nylon and polyethylene. As you use it, you'll find a myriad of tasks it can do ... in cluding caulking around your bathtub! (Devcon Silicon Adhesive).

## Types of Joints and Glues to Make Them

**Wood-To-Wood:** All Kinds

**Metal-To-Wood:** Epoxy

**Metal-To-Metal:** Epoxy (it must be supported with cloth or wire wrapping —solder is best).

(Continued on page 272.)



# ADHESIVES

(Adhesives continued from page 271)

**Foam-To-Foam:** Epoxy, "white" glue, contact cement (where applicable).

**Wood-To-Foam:** Epoxy, "white" glue, contact cement (where applicable).

**Laminations:** Contact cement, (best choice), white glues, epoxy (be careful to use sparingly, it's heavy).

**Plastics:** Epoxy, contact cement

## Making Glue Joints

Making a joint is, for many, too simple. You just lay in the glue, stick the pieces together, and wait for the glue to dry. Actually, it is not quite so simple. The above method will work, but you'll usually wind up with too much glue, thereby adding weight.

The best glue joints use just enough glue to hold the joint together. This means that your joint just be fitted tightly together. Any large gap will weaken the joint.

Let's look at how you make joints with the various types of adhesives:

**Acetates:** Apply the cement to the areas to be joined. Spread it in a thin film and allow to dry. When the cement is partially dry, apply another thin film and join the pieces. Clamp them together and allow to dry. This method insures the best bond, for joints of low stress, you can just apply the glue and join the pieces.

**Cyanoacrylates:** You must have a perfectly-fitting joint (no gap). For 10-second adhesive, apply the adhesive to the edge of the joint, capillary action will cause the adhesive to flow into the joint. The adhesive will then bond within about 10 seconds. For the 30-second variety, you apply the glue along the joint and then join the pieces. It will bond in about 30 seconds. This glue will span small gaps.

**Epoxy:** Spread the glue in a thin film and clamp the pieces together until the glue has set.

**White Glues:** Apply a film across the joint and allow to partially dry, then apply another coat and clamp the pieces together until dry.

**Contact cements:** Apply a coat to both pieces and allow to dry. When dry, align both pieces carefully and press firmly together. They are now bonded permanently.

**Silicon adhesives:** These are mainly used for sealing hatches and wing saddles and such. Apply a bead to the permanent part, lay down a layer of plastic wrap, and apply the removable part. When the silicon is dry, separate the pieces, peel away the plastic wrap, and trim the excess silicon away. You now have a perfect seal.

In all cases, use only as much glue as necessary. Too much glue will only run all over and add weight.



## AMBROID

AMBROID Regular Cement is the model builder's standby for all woods, leathers, canvass, metals, and fabrics. It is waterproof and hot fuel proof. DO NOT USE ON PLASTIC OR FOAM.

AMB31104 AMBROID REGULAR CEMENT 3.2 OZ 1.45 1.40 272

### Slow drying penetration equals strength.

Why is it that slow drying cements are stronger? As we explained, all cements dry by solvent evaporation. As the solvent is evaporated the cement penetrating the wood pores, forms the bond that will hold the pieces together. Once the solvent has stopped evaporating, wood pore penetration and bonding also stop. For a lightweight model, the weaker bond of fast-drying cement will get by - but for larger and heavier models that are subjected to more severe stresses and strains, a stronger and more permanent bond is a must. To sum it up, you sacrifice strength for the convenience of fast construction. So for best results, Ambroid "Regular" cement should be used wherever possible.

### Beware of cement "blush".

When the weather conditions are hot and humid, fast-drying cement joints frequently turn white or "blush". What actually happens is that high humidity coupled with fast evaporating solvent causes the cement film to be cooled below the condensation point of the surrounding atmosphere. The result is that water from the air is deposited on the cement film - just as a car window becomes steamed up in cold weather. This action separates the waterproofing ingredients from the cement mixture, resulting in a "blush" joint of low strength compared to a normal tough and transparent joint.

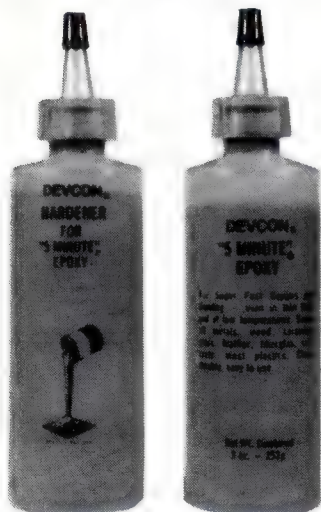
### How to make strong joints.

- Avoid cementing in a damp atmosphere.
- Do not sand surfaces too smooth. Slightly rough surfaces will result in better cement penetration or "bite".
- All surfaces must be free from dirt, grease and moisture.
- For maximum strength, double-cement by first coating the two cementing surfaces, allow to partially dry - then add a second cement coat and firmly press the parts together, holding for several minutes under pressure.
- Useful items for holding parts together until dry are masking tape, rubber bands, rubber strip, straight pins and "C" clamps.



## DEVCON

DEVCON "5 Minute" EPOXY  
M-209



### GIANT 9 OZ. ECONOMY SIZE

This is the most popular epoxy ever for the RC hobbyist. Not only bonds wood, but also metal, glass, etc. It's just right when you need super strength in a quick setting time of only 5 minutes. Comes in twin plastic squeeze bottles for no mess convenience. Packed in heavy-duty plastic pouch with complete instructions.

No workshop or field box is complete without Devcon 5 minute, Slow Cure, or Seal It Silicone. These products are of the highest quality.

Devcon® "5 Minute"® Epoxy  
Brand  
For super-fast repairs.

R-206



Sets in 4 to 7 minutes. First epoxy material to provide all physical strengths of epoxy adhesives plus quick setting, even in thin films and at low temperatures. Bond all metals, wood, glass, etc. For building RC models, repairing metal or pottery lamps, toys, metal or wooden furniture. For color matching, add food coloring.

Devcon® "5 Minute"® Epoxy  
Brand  
In the revolutionary new "Dev-Tube"™ the 2 in 1 dispenser.

R-208

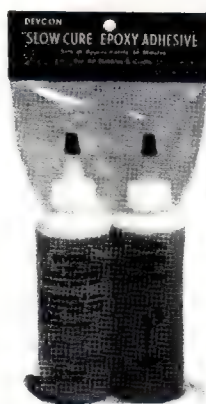


You simply snip off the double nozzle of this unique dispenser and push out equal parts of epoxy and hardener — automatically. Mix and apply. To close dispenser plug nozzles with special cap. No more waste motions, or lost caps. Devcon "5-Minute"® Epoxy for super-fast repairs is now available in the "Dev-Tube" dispenser.

Devcon® "Slow Cure"

M-33

9 Ounces



Clear epoxy in plastic squeeze bottles. Sets in approx. 30 minutes. For hobbies, crafts, general bonding and repairs. Heavy-duty plastic pouch holds twin bottles with complete instructions. Can be displayed on counter or on pegboard.

Devcon® "Seal-It" R-250  
Silicone rubber; guaranteed for 10 years.



Available in white, and clear. 100% silicone rubber — no solvents or diluents. Seals bath-tubs, sinks, storm windows, marine decks. Bonds loose tiles, fixtures. Permanently flexible. Will not shrink, crumble, crack, or dry out. For home, car, marine, or farm repairs. To make gaskets in place. Outstanding adhesion to glass, porcelain, metals, wood.

DEV32206	DEVCON R-206 LARGE 2.5 OZ.	3.49	3.20	273
DEV32208	DEVCON R-208 DEV-TUBE 1 OZ.	2.39	2.25	273
DEV32209	DEVCON M-209 9 OZ. 5 MINUTE	7.95	5.95	273
DEV32233	DEVCON M-33 9 OZ. 30 MINUTE	7.95	5.95	273
DEV32250	DEVCON R-250 SILICON RUBBER 3 OZ	3.75	3.45	273

## SORGHUM



A SUPER contact cement for sheeting foam wings and tail surfaces boasting the following: extremely light weight, tremendous adhesion, ease of manipulation, very noncritical "open" time, 30 minutes to 3 or 4 hours. Brush on as thin as possible and a 7 oz. bottle is enough for a wing and a stab.

DBP31101	DAVE BROWN SORGHUM 7 OZ.	3.25	2.95	273
DBP32010	DAVE BROWN 30 MIN. EPOXY 10 OZ	6.95	5.45	273

## DAVE BROWN

### EPOXY

Dave Brown Products 30 Minute Epoxy is very high quality. It is not brittle, yet it sands easily making it ideal for structural building, filleting (with micro balloons) and finishing. Comes in convenient plastic squeeze bottles. 10 oz. total weight.

## GAS MODEL PRODUCTS

### KWIK SET 6 MINUTE EPOXY

A two part clear epoxy formulated for model construction using the highest quality available. Fuel proof, water proof, and resistant to most harsh chemicals. Will not become brittle with age as do some cheaper epoxies. Available in easy to use flip top containers. Now Kwik Set epoxy is available not only in its familiar 10 oz. size, but now comes in a giant combined weight size of 16 oz. This results in a significant cost per ounce savings. Try it on your next Quarter Scale!

GAS32000	GMP 10 OZ. 6 MINUTE EPOXY	7.95	5.95	273
GAS32016	GMP 16 OZ. 6 MINUTE EPOXY	10.95	7.95	273





GOLDBERG

# SUPER JET

## REVOLUTIONARY NEW INSTANT GLUE

DOES JOBS THAT NO INSTANT GLUE  
COULD DO UNTIL NOW!

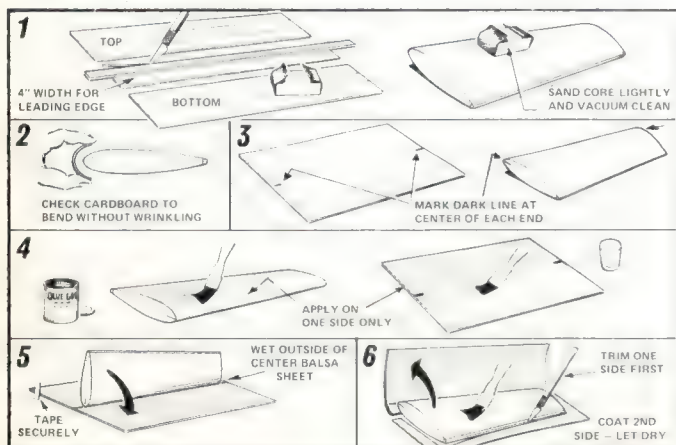


Normal model instant glues are watery-thin, and do a great job within their limits. But new SUPER JET has "body," just like regular model cement. Now you get the best of both worlds - the workability of model cement, and the high strength and quick-setting of instant glue. With SUPER JET you can now:

- Glue joints that are not perfect fits
- Laminate large area doublers
- Glue plywood to balsa
- Glue hardwood bearers to balsa
- Glue end-grain balsa
- Even glue old balsa

### INSTRUCTIONS

1. COVERING WITH BALSA: First trim edges of sheets with razor knife and straight edge. Center sheet should be soft, straight, "A" grain - bends easily with less tendency to crack. Join sheets with Ambroid, "JET", Zap, etc. (Avoid Titebond or white glue - hard to sand). Final sheet size should be slightly larger for trimming edges later. Sand joints even with sanding block. Sand foam core lightly. Vacuum clean all surfaces.
2. COVERING WITH THIN CARDBOARD: Use 5 or 6 #. Krone-Kote obtainable from paper supply houses, printers, stationers, etc. Check grain direction of small piece to bend without wrinkling. Grain must parallel leading edge. Piece should be slightly larger for trimming edges later. Use shiny side out, sand dull side and foam core lightly, and vacuum clean.
3. Mark center of sheet on inside, and center of leading edge of wing core on both ends. Be sure to work on a flat, solid surface.
4. With a brush 1" to 2" wide, apply thin coat of Blue Goo evenly to sheeting and one side of wing core. Let dry 30 to 45 minutes, and no more than 3 hours. Keep brush in water glass or jar with 1/4" of water. Clean brush with hot water before cement sets up. Wet outside of center balsa sheeting with warm water for easier bending.
5. Prepare carefully for joining. Once in contact, surfaces cannot be adjusted. Tape sheeting securely in place. Line up center marks, and set leading edge of wing core on sheeting. With firm pressure, roll coated side of core down and back to trailing edge. Press together all over for good bond, then trim excess.
6. Coat 2nd side of core. Allow drying time as above and apply sheeting. Repeat pressing and trimming. Let dry overnight.



All These joints have been difficult or impossible with previous model Cyano-acrylates. SUPER JET is a new type - you use it like traditional model cement - but it sets in seconds! You can apply it to one side of the joint, then press the parts together briefly - and that's it! You can build the whole model with SUPER JET! Good modelers who've tried it are so enthusiastic they say you don't need any other kind of glue. Even put in firewalls with it. We just say, "Try it. We believe you'll like it!"

Carl Goldberg Models, Inc. produces both Jet and Super Jet Adhesives. Jet is an instant glue that sets up and cures in 10 to 20 seconds. New Super Jet is a really different instant glue which combines the versatility of traditional model cement with the speed and strength of instant glues. This outstanding glue makes joints that are difficult or impossible with regular model cyano-acrylates. The glue is thicker than the regular instant glues and can be applied to one surface in a bead like regular model cements. The glue will WAIT for a while before forming a permanent bond; it is "set off" when the two surfaces are pressed together. This property also helps the modelers who have trouble making perfect joints. The Super Jet will partially fill the gaps.

### REGULAR JET SUPER GLUE

Using JET is somewhat different from using other kinds of adhesives. With this material the pieces are first pressed together as you want them. Then the adhesive is sparingly applied to the joint to be glued. A single drop will be adequate in most installations. If you want to add more, do so after the first application sets up. Hold the parts firmly together for about 15 seconds, and that's it. No pins, clamps, or weights are needed. If too much JET has been used on a joint and it doesn't set up in the normal period of time, the heat from a soldering gun, MonoKote iron, heat gun, hair dryer, light bulb, or cigarette may be used to "kick" it off.

Since JET is very thin, it penetrates very well into most porous materials. However, because it does not build up a fillet of its own as many other adhesives do, a solid glue joint depends on a good fit of the parts to be joined. Where two parts do not fit accurately, some balsa dust or microballoons may first be added to the joint to fill the irregularities. Then apply the adhesive.

JET Super Glue is a clear adhesive that flows like water. One tiny drop will flow through 1/4" to 1/2" of a tightly fitted joint. In normal temperature and humidity, it cures in approximately 10 to 20 seconds, and may be used to bond balsa, hardwood, plywood, many plastics, rubber, glass, ceramics, metal, leather, or some fabrics. The normal shelf life at room temperature is approximately six months. If stored in a refrigerator, the shelf life can be extended two or three times.

GBG31C00	GBG 389 BLUE GCC ADHES. 16 OZ	3.49	3.30	274
GP32C00	GCLDGBG 386 JET REGULAR 1/2OZ	3.50	2.95	274
GBG32384	GCLDGBG 384 SUPER JET 1/2 OZ	4.50	3.85	274



## HOBBYPOXY

HCB32C01	HCBYPPOXY FORM 1 EPOXY 1-1/8 OZ.	2.00	1.80	275
HCB32C02	HCBYPPOXY FORM 2 EPOXY 8 OZ.	4.75	3.95	275
HCB32C03	HCBYPPOXY FORM 3 EPOXY 8 OZ.	5.75	4.95	275
HCB32C04	HCBYPPOXY FORM 4 EPOXY 2 OZ.	2.75	2.50	275

## Why four epoxy glues?

Because some construction requires the strength that only an epoxy glue can provide. Like firewalls and motor mounts, landing gear mounts, metal-to-wood and metal-to-metal joints, boat construction, and on and on. One of our formulas will be just right for whatever you're gluing.

■ **Formula 1:** The original epoxy glue, with 15-minute working time and one-hour cure, is designed for all general construction. ■ **Formula 2:** The slow-setting epoxy with super strength. 45-minute working time and four-hour cure gives you plenty of time to pin, clamp, tape and align all the joints before the glue sets. ■ **Formula 3:** Similar to Formula 2,

but with a gel-like consistency that keeps it where you put it...no sags, drips, or runs, and just about the same convenient working

and curing times as Formula 2.

■ **Formula 4:** A fast-setting five-minute epoxy for quick construction and emergency field repairs. Like all our epoxy glues, will never become brittle with age.

Serious model builders keep all four formulas on their work benches, for the jobs that call for super adhesion and super strength.



HOBBYPOXY



## NEW HOT STUFF SUPER T .5 OZ.

Hot Stuff Super T is the new gap-filling cyanoacrylate adhesive from Satellite City. This is the Hot Stuff which can be used just like regular glue. The Super T has a cure rate from 10 to 25 seconds, thus allowing time for positioning after parts are mated. This also permits fingers to be separated when you have not taken due care to keep them free of the glue. The Super T formula is designed to a high viscosity for the ability to fill small gaps left by poorly fitting parts and to fillet each joint for extra strength. When applying, just apply to one part, then assemble, position and hold firmly for 10 to 25 seconds. This may turn out to be the all-purpose glue that we thought we had in the past, but with extra strength and life. If you like Hot Stuff, then you will love Super T.



HOT STUFF regular is available in .5 oz. and 2 oz. economy size.

HOT STUFF  
BLUE LINE  
.5 OZ.

Blue Line is the same as regular Hot Stuff except that it is tinted blue so you can see how much you are applying and don't waste any.

HCT32C00	HOT STUFF ADHESIVE HS-4 2 OZ.	12.00	8.40	275
HCT32C01	HOT STUFF ADHESIVE HS-1 .5 OZ.	3.95	2.75	275
HCT32C02	HOT STUFF T500 TUBING 18 IN.	.50	.45	275
HCT32C03	HOT STUFF T500 TUBING/SUPER T	.50	.45	275
HCT32100	HOT STUFF BLUE LINE HS-5 .5 OZ	4.95	3.95	275
HCT32200	HOT STUFF SUPER T HS-1 .5 OZ	3.95	2.95	275

Satellite City

HOT STUFF

## HOT STUFF™

## THE #1 INSTANT ADHESIVE

"HOT STUFF" is a SUPERIOR cyanoacrylate adhesive compounded for a rapid cure rate of three to twelve seconds with EXCEPTIONAL BOND STRENGTH.

"HOT STUFF" penetrates the most closely fitted parts and is used for total bonding of structures. "HOT STUFF" bonds PLYWOOD—BALSA WOOD—SPRUCE—PINE—NYLON—RUBBER—METALS—MOST PLASTICS and CERAMICS.

Special Teflon "CONTROL DROP" applicator tubing is supplied to allow very small drops to be used. Excessive amounts slow curing time and do not increase bond strength. Cut end of applicator tubing to a bevel and insert about 1/4" into hole in top of container—No need to remove tubing once inserted.

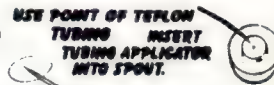
"HOT STUFF" works best on clean materials which fit closely. Should a gap exist, or if "pitchy" woods such as spruce or pine are to be bonded, fill gaps or "dust" lightly with common BAKING SODA before bonding. Baking Soda is an excellent filler and sands well.

Storage: Keep out of direct sunlight—Shelf life runs six months under normal temperatures. Refrigeration extends shelf life.

## EXTEND "HOT STUFF" SHELF LIFE INDEFINITELY!

1. PLACE UNOPENED BOTTLES IN THE FREEZER. MATERIAL WILL NOT FREEZE OR CHANGE.
2. WHEN READY TO USE ALLOW TO RETURN TO ROOM TEMPERATURE.
3. WIPE OFF ALL CONDENSATION FROM BOTTLE.
4. REMOVE CAP AFTER BOTTLE IS DRY.
5. SHELF LIFE TIME STARTS AGAIN AFTER REMOVAL FROM FREEZING UNIT.

USE POINT OF TEFLON  
TUBING INSERT  
TUBING APPLICATOR  
INTO SPOUT.



KEEP OUT OF REACH OF CHILDREN  
WARNING — EYE IRRITANT — CONTAINS CYANOACRYLATES.



## PICA



**Fillit** is a brand new form of micro-balloon filler. It's concentrated, not "puffed-up," enabling it to be poured from a nozzle. This system allows you to accurately measure the portions to the precise density you desire. **Fillit** mixes readily with epoxies, polyesters, aliphatics, cellulose cements, in fact, use **Fillit** with any glue you wish. It forms a strong, ultra-light sandable solid. Even large wing fillets will cut down easily, quickly and smoothly.

**Gluit** answers the need of builders for a fast-drying aliphatic glue that is *truly* sandable. **Gluit** dries in an average of 10 to 15 minutes, depending upon the thickness of application. The result is a strong bond, easy to sand, making it perfect for butting balsa sheets and planking wings. Wood joints are stronger when made with **Gluit** than with epoxy.

PIC31012	PICA 1002 12 CZ. GLUIT	3.19	2.95	276
PIC61001	PICA 6001 FILLIT MICRO-BALLOON	2.39	2.25	349

## OHIO SUPERSTAR

### A NEW WAY TO SHEET WINGS



FASTAPE is a lightweight double-sided tape that adds very little weight to the model.

FASTAPE is EASY to use and get a good sheeting job every time.

It is also fast to use. No more waiting on goop to dry or cure! The entire job can be done in minutes. No more warping of the sheeting because it is wet. No more pulling away because it wasn't ready.

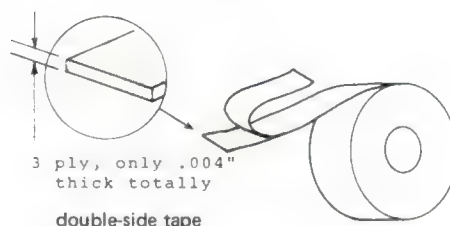
As for strong - FASTAPE actually pulls wood and foam away with it before it will let go!!

OHS31C10	CHIC SUPERSTAR FASTAPE 50"x1"	4.95	4.55	276
OHS31030	CHIC SUPERSTAR FASTAPE 50"x3"	8.95	7.95	276

## SONIC-TRONICS

# "CRAZY-TAPE"

You have to be "Crazy" not to use it!



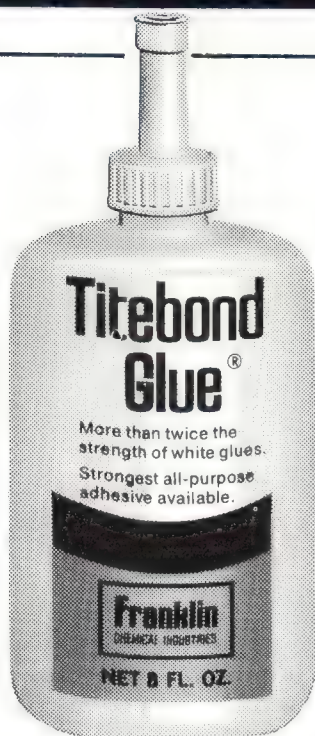
*This three layer tape has super strength, is only .004" (0.10MM) thick and has instant adhesion exceeding 3½ pounds per square inch.*

*"Crazy-Tape" will do any of the following, plus more. . . .  
Instantly bond Balsa to Foam in wing construction.  
Instantly bond Balsa to Plywood for quick fuselage doublers.  
Instantly bond Balsa to Balsa in a cross gained configuration making a new material, Balsa Plywood. It's light weight, strong and non-warping.  
All this and more is your's with "Crazy-Tape", the modeling material of the future that's available now!*

STR31400	STR #400 CRAZY TAPE 1/4"x5C"	2.49	2.35	276
STR31410	STR #410 CRAZY TAPE 3/4"x5C"	5.95	5.45	276



# TITEBOND



More than twice the strength of white glue . . . stronger than wood itself. Titebond superior strength has been proved by A.S.T.M. test D905-49 using hard maple. Since this test is the wood working industry's standard for determining shear strength of adhesives, it's no surprise that 9 out of 10 leading furniture manufacturers use Titebond Glue.

Spreading easily at temperatures from 45° to 110° F., Titebond has

excellent tack, toughness and durability. Sets fast, shortening clamp time, and resists heat and solvents (lacquers, varnishes, sealers). Titebond is sandable, does not soften or gum up sandpaper. Used by carpenters and handymen as well as household and commercial users for gluing wood, cloth, paper and many other porous materials.

Titebond Glue is safe for children to use. The aliphatic resin formula will not stain, is non-toxic and non-flammable.

TIT31008 TITEBOND ALIPHATIC RESIN 8 OZ.  
TIT31016 TITEBOND ALIPHATIC RESIN 16 OZ.

2.11 2.00 277  
3.51 3.35 277

## CHARACTERISTICS

Ideally used for bonding porous materials; plywood, balsa wood, hard wood, hardboard, leather & fabrics. Excellent sanding qualities. Can be painted.

Wilhold Aliphatic Resin Glue is a ready to use glue with outstanding application qualities: super fast grab, tremendous strength, quick setting. Dries clear. Vibration and shock resistant. Recommended for production woodworking. Meets Government Specification MMM-A-193C. Tested & approved for radio-control model construction. Recommended by R/C Modeler Publications.

Wilhold Aliphatic Resin Glue can be applied at temperatures between 40°F. and 110°F. For best results, the ideal temperature of glue and materials would be 70°F.

Surfaces should be clean, dry and dust free. Apply thin coat and press into position. If weights or clamps are used to hold materials in alignment, use minimum pressure to prevent a "starved glue joint." Under normal conditions, 10 to 25 minutes clamping is sufficient. Overnight drying is best.

## CHARACTERISTICS

Wilhold 54 Spray Adhesive is a translucent contact type cement that bonds a variety of materials with ease . . . without mess.

Excellent holding power, it provides a fast "tacky" grab that allows positioning of lightweight materials to the bonding surface. This one stays flexible.

It is non-wrinkling on thin paper. Fabrics stay down flat and tight. The tip produces a fan spray that lays down an even, uniform glue line. Typical of any aerosol product, there is an overspray. Use newspaper to keep work area clean. Use paper templates over areas that are not to be sprayed.

WLH31008 WILHOLD ALIPHATIC RESIN 8 OZ.  
WLH31017 WILHOLD ALIPHATIC RESIN 17 OZ.  
WLH31054 WILHOLD SPRAY ADHESIVE 12 OZ.  
WLH31056 WILHOLD R/C-56 ADHESIVE 4 OZ.

2.10 2.00 277  
3.75 3.45 277  
4.20 3.85 277  
1.50 1.45 277

# WILHOLD



**TESTED &  
APPROVED BY  
RADIO/CONTROL  
MODELER  
MAGAZINE**

R/C-56 . . . a multi purpose adhesive specifically formulated and highly recommended for RC modelers, desirous of bonding vinyl canopies to wood, foil, fiberglass and painted surfaces . . . on airplane, boat and helicopter models. R/C-56 is equally applicable for bonding ABS plastic, butyrate and styrene foam, creating a firm, flexible bond to withstand shock and vibration. Bonds porous and non-porous materials with outstanding adhesive results. Dries clear. For maximum results, R/C-56 should be used sparingly and it's economical too.



# BATTERIES & CHARGERS

## BATTERIES AND CHARGERS

To the R/C'er batteries and chargers are key elements. Nearly every phase of this hobby involves these two items in one way or another. Our radio transmitter and receiver are powered by batteries, as well as power panels, glow plug starters, cars and car chargers, electric starters, field chargers, and many more items that are quite common to the R/C field.

The Tower Hobbies 12 volt wet cell motorcycle battery is extremely popular because it is heavy duty, very powerful, and is quite inexpensive. It is ideal for powering your power panel, electric starter, or any other item that requires a 12 volt source. We also stock the M.E.N. 12 volt gel-cell which is made up of two connectable 6 volt gel-cells. This is quite convenient since you can use these separately for 6 volt needs or together for 12 volt requirements. Astro Flight now supplies a new 12 volt starting battery that uses the new G.E. Gates cells. This 2.5 amp battery weighs only 2 pounds but has more starting power than most batteries three times its size.

For charging those 12 volt wet or gel-cell batteries we have the Tower Hobbies 12 volt wall battery charger. This charges at a .5 amp-hr. rate which means it would take about 10-12 hours to charge a 5 amp battery. This is a very convenient and inexpensive charger to have around your shop.

L. R. Taylor makes the Accu Charger which also charges 12 volt wet or gel-cell batteries. It is current limited and voltage regulated to provide protection against overcharge. The Accu Charger automatically goes into a float mode when the battery is up. Just plug this into your battery and forget about it.

For igniting that glow plug we have some excellent products. Fusite makes the GloBee Fireplug with charger included which not only ignites your glow plug but monitors your starting condition. The Fireplug is powered by a nickel-cadmium battery that is rechargeable hundreds and hundreds of times. C&D makes the Glo-Driver which contains a unique electronic pulsing circuit which automatically drives any 1 1/2 or 2 volt plug without adjustment. Its deluxe meter allows visual detection of open, shorted or flooded glow plug for fast, reliable starts. This unit, as well as the GloBee Fireplug, have plenty of power to burn off excess fuel when your engine becomes flooded. In the way of simple glow plug starter batteries we carry the Eveready 1 1/2 volt dry cells in several sizes. We also stock the Tatone Pocket Booster nicad rechargeable battery and charger.



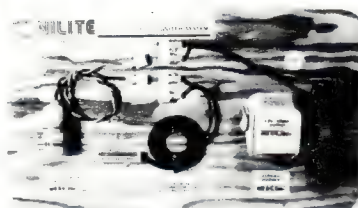
### TRANSMITTER NI-CD CONVERSION KIT

Convert your dry battery operated 2 or 3 channel transmitter to Ni-cd operation for economy and dependability. Kit contains two 4.8 v 500 ma nickel cad battery packs for easy fit in most any transmitter case; Deans Charge Connector set; 9.6 volt wall plug charger for overnight recharge.

Will pay for itself by doing away with dry battery replacement, but your greatest benefit will be peace of mind.

**ACE**

**NILITE**



### NI-CD GLOW PLUG IGNITER

Attach your favorite glow plug clip to this unit for a dependable, durable, inexpensive, small, lightweight, rechargeable battery for your flight box.

Source of power is a 1.2 AH 1.2V nickel cadmium cell which has more than enough capacity for any normal flying session.

Recharge the battery at 120 ma for overnight. (See charger listed elsewhere)

Battery is wired and connectors for hookup to plug clip and charger are furnished.

### "NILITE" CHARGER

This wall charger charges 1.2 volts at 120 ma--an overnight charge rate for our Nilite glow plug battery.

No connector is furnished.

### DUAL UNI-CHARGER



A kit that will not only charge most sizes of receiver batteries on the market, but also charge your transmitter at the same time or independently.

Consists of an isolated wall-type transformer, PC board, two LED charge indicators, wire, solder, and dropping resistors to provide the proper charge rate.

The transmitter side of the charger puts out 45-50 ma. The receiver side can be programmed to furnish the following current to a 4.8V ni-cd: 10 ma, 20 ma, 33 ma, or 45/50 ma; this covers most applications.

You have to put it together.

## METERED VARI-CHARGER



This versatile piece of gear is ideal for most of your charging needs. It is a refinement of our popular Vari-Charger: it goes one step further by metering the output so you know exactly what you're putting into the batteries. An LED indicates when the charger is on, plus shows when the battery pack is properly hooked up.

This variable charger will charge from one to ten cells at a rate from 10 to 100 milliamperes. Perfect for all your airborne or transmitter packs. Will also trickle charge your 12 volt motorcycle battery.

Housed in a black Dakaware case with an attractive etched aluminum face plate.

ACE86389	ACE 38K9 TX NICAD CONV. KIT	24.95	22.95	278
ACE86911	ACE 34K2 METERED VARI-CHARGER	18.95	17.95	278
ACE86913	ACE 34K45 DUAL UNI-CHARGER KIT	8.50	8.10	278
ACE19C19	ACE 38K19 NILITE BATT.&CHARGER	14.95	13.95	278

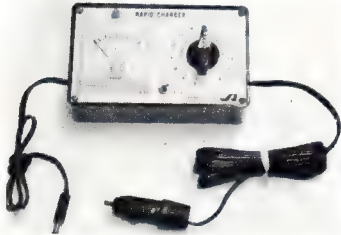


## BATTERIES & CHARGERS

New From Astro Flight

### AUTO CHARGER WITH EQUALIZER CIRCUIT (4005A)

- New fast charger for R/C electric cars has dual charge rate for 4 or 6 cell systems.
- Equalizer circuit tops off battery pack between races for maximum performance.
- Overnight use of equalizer recommended on new battery packs.
- Equalizer helps eliminate possibility of reversed cells due to any weakening of a single cell within the pack.
- Built-in pilot light give positive indication of circuit function.



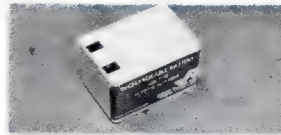
**RAPID CHARGER.** The Rapid Charger is designed to charge any 6 or 12 volt systems from your auto cigarette lighter receptacle. The ammeter indicates the state and condition of charge and the timer automatically terminates the charge when the charge cycle is complete. **4005**



**12 VOLT BATTERY CHARGER.** Designed to charge all 12 volt gel cells and motorcycle batteries overnight from a 110 volt wall outlet. Carry this mini charger in your flight box and don't be caught with a dead battery. (4006)

AF110C00	AFI 4003 AIRCRAFT SW. HARNESS	7.95	7.50	279
AF110C01	AFI 4002 CHARGE CORD-W/CLIPS	9.95	8.95	279
AF110C02	AFI 4001 CHARGE CORD-AUTO	9.95	8.95	279
AF110C03	AFI 4006 6/12 V. BATT. CHARGER	9.95	7.95	279
AF110C04	AFI 4005 RAPID CHARGER	29.95	25.45	279
AF110C05	AFI 4004 FIELD CHARGER	49.95	39.95	279
AF120C00	AFI 4005A AUTC CHARGER	29.95	25.45	279
AF119110	AFI 4014A 12V 2.5 AMP BATTERY	34.95	27.95	279

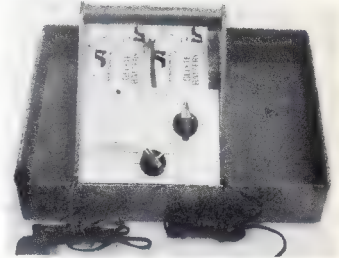
## ASTRO FLIGHT (AFI)



**SUPER POWER STARTING BATTERY.** Super high power light weight starting battery uses new G.E. Gates Cells. This 12 volt 2.5 amp hr battery weighs only 2 lbs but has more starting power than most batteries three times its size. (4014A)



**AIRCRAFT SWITCH HARNESS**  
On-off switch and charge receptacle packaged together. You will need one of these for each electric powered model



**FIELD CHARGER.** This deluxe unit comes completely preassembled, ready for finish. Compartments for your props and wrenches, transmitter, and two or four gel cells are provided. The Field Charger will charge all Astro systems at the flight line. Two 12 volt 6 amp gel cells are required. Charging the Astro 25 twin system requires one additional 6 volt battery. **4004**

## C&D ENTERPRISES

THE UNIQUE GLO-DRIVER

1. SMALL, COMPACT unit containing a unique electronic pulsing circuit, which automatically drives any 1 1/2 or 2 volt plug without adjustment
2. SELF-PROTECTING against those momentary shorts
3. DELUXE METER allows visual detection of open, shorted or flooded glow plug for fast, reliable starts
4. INTERNAL 4.8 volt battery which can be charged from your home or field airborne receiver battery charger and monitored with your ESV
5. HEAD LOCK glow plug connector supplied with each unit



C&D12C00	C&D ENTERPRISES GLO DRIVER	59.95	46.45	279
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## DAE ENTERPRISES



**LOW RATE CHARGER**  
\* charges from auto lighter

\* Maximum charge rate of 50 MA

\* Safe charge rate with or without car engine running

DAE90530	DAE 8030 LOW RATE CHARGER	31.95	25.55	279
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## DAVE BROWN

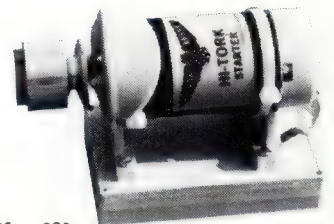
This nicad rechargeable battery pack attaches to electric starters for super easy starts. The heavy duty G.E. cells provide enough starts for a weeks worth of flying before requiring a re-charge.

CHECK OUT THESE FEATURES:

Case and Starter Mounts Molded from Nylon; Adapts to All types of Starter Motors; Compact and Cordless; Safer Starts—No More Cords Caught in Props; No More Spilled Battery Acid; All Screws and Straps are Furnished.

**CORDLESS STARTER PACK (starter not included)**

(charger available)



DBP12C10	DAVE BROWN STARTER BATT. PACK	49.95	39.95	279
DBP12C20	DAVE BROWN BATT. PACK CHARGER	9.95	7.95	279



No. 6  
#EVE19006



No. 735  
#EVE19735



No. 711  
#EVE19711

1.5 Volt Dry Cells

## EVEREADY

(At left) Eveready 1.2 Volt dry cell batteries are excellent batteries for 1.2 volt glow plug use as they are specially designed to provide long life at a moderate price. Just attach the leads from your glow plug kwik clip or glow plug connector cord set and you're ready to fire up your engine effortlessly.

(At right) Eveready #276 9 Volt dry cell is recommended for dry cell transmitter use. The Tower 3 channel requires this battery.

EVE19C06	EVEREADY #6 1.5 V BATTERY-CRY	4.40	4.05	279
EVE19C91	EVEREADY E91 AA PENCIL BATT.	.90	.85	279
EVE19276	EVEREADY #276 9 V TX BATT-CRY	4.70	4.45	279
EVE19711	EVEREADY #711 1.5V BATTERY-CRY	4.80	4.40	279
EVE19735	EVEREADY #735 1.5V BATTERY-CRY	3.00	2.75	279

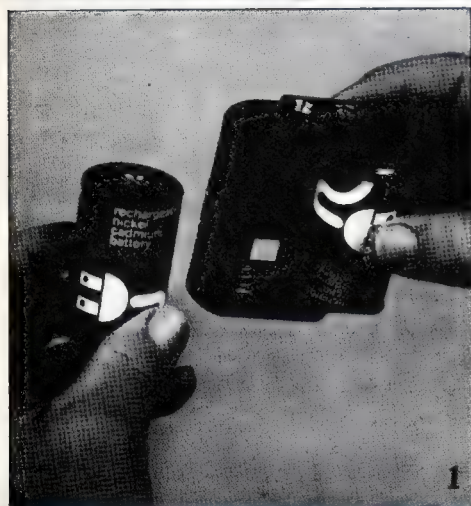




# BATTERIES & CHARGERS

## GENERAL ELECTRIC

The GE miniature charging system is as easy to use as one-two-three.



1) put batteries into proper size module



2) snap module onto charger

(BC3 charger is pictured above and fits any module)



3) plug into any household outlet

**The General Electric Rechargeable Battery System** . . . can power many battery-operated products for years, not just days or weeks. Because when GE batteries run down, you simply recharge them . . . up to 1000 times!

**Power that saves.** While an alkaline battery may last a long time, once it's dead, it's dead. You have to throw it away! GE rechargeables can save you money because you don't throw them away. Use them over and over again . . . for years. One GE battery could outlive 100 leading alkaline batteries over a four-year period. And the GE battery only costs about 5 cents a month to recharge.

**Power that doesn't fade.** GE batteries provide more consistent power than throw-away batteries, too. Tape recorders don't slow down, flashlights don't dim, electronic flash units recycle faster . . . until the batteries need recharging.

**Power when you need it.** With GE rechargeables, you can say good-bye to running out for batteries. Just put the GE batteries into a module that snaps onto the miniature charger. Then plug it into a common household outlet. In 14 hours, the batteries are fully charged. Keep an extra set on charge while you're using your GE rechargeables, and you'll have battery power on tap any time you need it!

**For just about everything you own that's battery-powered** . . . GE rechargeable batteries come in the most popular sizes — AA, C, D, and 9 volt sizes. And one, handy miniature charger fits all four sizes. So stop throwing away batteries and start saving money. Buy GE rechargeables . . . the batteries that last for years.

GE nicad rechargeable batteries are very powerful and long-lasting. They work great in cars, trucks, and off-road vehicles made by MRC, Latrax, Shinsei and others.



MA21

AA Module for BC3 Charger with Two AA Rechargeable Batteries



MC22

C Module for BC3 Charger with Two C Rechargeable Batteries



MD23

D Module for BC3 Charger with Two D Rechargeable Batteries



M919

Rechargeable Battery for 9 Volt Applications with Charging Module (Snaps on BC3 Charger)



GC1

AA Rechargeable Battery



GC2

C Rechargeable Battery



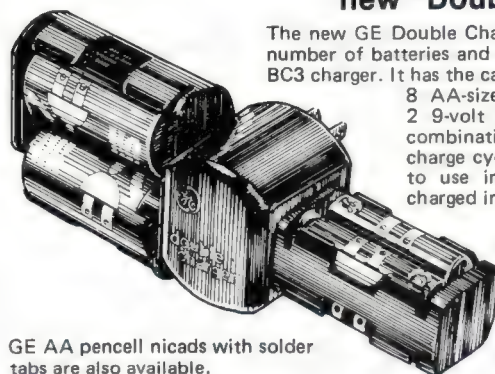
GC3

D Rechargeable Battery



GC9B

Rechargeable Battery for 9 Volt Applications (Single Pack)



GE AA penceil nicads with solder tabs are also available.

## Introducing GE's new "Double Charger"

The new GE Double Charger charges twice the number of batteries and does it faster than the BC3 charger. It has the capacity to handle up to 8 AA-size or 4 C or D-size or 2 9-volt size batteries (or any combination) during a single charge cycle. Batteries are ready to use in 3 to 5 hours, fully charged in 8 to 12 hours.

GEC90010	G.E. GC1 AA NICAD BATTERY	3.49	3.20	280
GEC90020	G.E. GC2 C NICAD BATTERY	3.89	3.60	280
GEC90030	G.E. GC3 D NICAD BATTERY	3.99	3.65	280
GEC90040	G.E. GC9B 9 VOLT NICAD BATTERY	8.99	8.10	280
GEC90110	G.E. MA21 AA MODULE W/2 NICADS	8.68	7.80	280
GEC90120	G.E. MC22 C MODULE W/2 NICADS	9.48	8.55	280
GEC90130	G.E. MD23 D MODULE W/2 NICADS	9.69	8.70	280
GEC90140	G.E. M919 9V MODULE W/1 NICAD	9.49	8.55	280
GEC90200	G.E. BC3 MINIATURE CHARGER	3.98	3.65	280
GEC90250	G.E. BC2 DOUBLE CHARGER	5.98	4.98	280
GEC90310	G.E. 5ST AA NICAD W/TABS	3.89	3.60	280
GEC90410	G.E. RSAA CHARGER/MODULE/2 AA	12.66	11.25	280
GEC90420	G.E. RSC CHARGER/MODULE/2 C	13.46	11.95	280
GEC90430	G.E. RSD CHARGER/MODULE/2 D	13.67	12.15	280
GEC90440	G.E. RS9 CHARGER/MODULE/1 9V	13.47	11.95	280



## FUSITE

### GloBee Fire Plug... an integrated system for fast, variable power starts



Charger  
included with  
FirePlug



The new GloBee Fire Plug is the world's first completely integrated glow plug starting system. Just attach your own favorite plug connector to the terminals. This hand-held unit not only ignites your plug but also monitors your starting condition—a "0" ammeter reading indicates a burnt out plug, and a higher than normal reading reveals a flooded engine. Look at these additional features:

- thumb controlled rheostat delivers optimum current flow to match weather, fuel, and plug ignition specifications
- easy-to-read ammeter shows precise power output
- high impact polypropylene case has fluted base for non-slip, one hand operation
- all circuitry is safety fused with spare fuse included
- color-coded engraved terminals reduce chance of error
- overnight recharge four times a year should maintain power level for long service life

Buy a GloBee Fire Plug today, and enjoy years of fast, reliable engine starts perfectly matched to your special requirements.

**AMMETER:** 0-10 ampere range

**RHEOSTAT:** 25 positive detent positions

**POWER:** 2 volts (nominal)  
5 ampere hour rating  
200 watts (peak power)

**SIZE:** 2" diameter by 5½" tall

**RECHARGE:** Overnight, 3-4 times a year or as necessary  
Capability of 150 recharges  
2.3-2.6 VDC input  
2 ampere max. charging current  
Ammeter indicates recharge state

**WEIGHT:** 1.2 pounds (550 grams)

FUS90010 FUSITE GBFP-C FIREPLUG&CHARGER

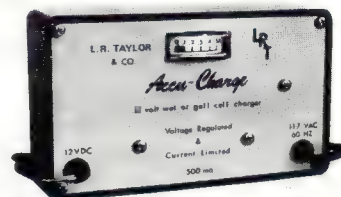
39.50 29.95 281



LR19C00 LR TAYLOR ACCU CHARGER-12 VOLT  
LR192500 LR TAYLOR SUPER CHARGER #2500

24.95 21.20 281  
29.95 24.75 281

## LR TAYLOR



**SUPERCHARGER**—One of the most destructive things you can do to your Nicads is to overcharge them at a high rate. L.R. Taylor & Co. has the solution in the new SuperCharger, designed to provide a safe field charger for six cell 1.2 amp nicads, used in most electric R/C cars. In the Quick Charge Mode it monitors the nicad charge level. When the nicads are up it automatically switches to a slow charge mode, and tops them off at a safe rate. The SuperCharger features a safe 15-minute Quick Charge mode, a slow charge mode, and it operates from any 12 volt DC source. The Super Charger is supplied with a cigarette lighter plug for your convenience.

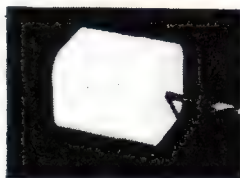
The Accu Charger is designed to provide a convenient, safe charger for your 12 volt wet or gel-cell. It is current limited and voltage regulated to provide maximum protection against overcharge of your 12 volt battery.

THE FEATURES ARE:

- 1) Specifically designed for the 12 volt, 4 to 6 ampere wet or gel-cells.
- 2) Safe charge rate (overnight).
- 3) Current limited at 0.5 ampere to protect your 12 volt battery.
- 4) Voltage regulated to provide a tapered charge. The Accu Charger goes into a float mode when the battery is up.
- 5) Transformer isolation from the AC line for user safety.

### BATTERY PACK

- Reliable GE NI-CD cells
- Full 250 MA - HR capacity
- Light weight — 2.5 oz.
- Small size (1¼ x 1¼ x 1½")
- Rugged Construction
- Fuel Resistant Nylon Case
- Can Be Fast Charged



## S&O

S6C86250 S&O 250 MA BATTERY PACK

16.95 15.25 281



# BATTERIES & CHARGERS

## M.E.N.

The flexibility of two batteries, for 6 Volt boats and fuel pumps, and separate placement in flite boxes for balancing, is a unique feature. M.E.N.'s batteries offer 25% more amp-hour capacity than our competitors. The M.E.N. battery requires only recharging. There are no fluids to add, liquid levels to check, or routine maintenance to perform on the PB 660. M.E.N.'s gelled electrolyte ends your problems of finding proper fluids and getting it into the battery. When tilted or inverted, full capacity is obtained with M.E.N.'s PB 660 because the gelled electrolyte will not flow away from the plates. If totally discharged no permanent cell reversal will occur, however, to obtain maximum cycle life observe the recommended cut off voltage. M.E.N.'s PB 660 batteries may be connected in series or parallel to obtain higher voltages or higher capacity. M.E.N.'s high impact non-conductive plastic case cannot cause short circuits, will not rust, or cause corrosion to other equipment.

The PB-660 batteries weigh 2.3 pounds per 6 volt unit. They have a capacity of 6 Amp Hour at a 20 hour rate of .3 amperes. The PB-660 are furnished with connectors which mate with a Molex plug 1545-P-1 and female pins 1189.

Normal charging can be done in sixteen to twenty-four hours. The initial charge current should be .5 to 1 amperes tapering to .15 amperes or lower. Fully charged batteries typically have an end of charge voltage of 7.4 volts per unit.

Overcharging reduces battery life, under no conditions should the charger be left on over 48 hours. Never store the Men battery in a fully discharged condition as the plates will be adversely affected, limiting the capacity of the battery.

**M.E.N. packages two PB 660,  
4 matching plugs, 8 matching female pins,  
and specification and warranty sheet in a  
single box to provide 12V-6A.H.R. to the user.**



MEN19200	MEN 12 VOLT GELL-CELL 6 AMP-HR	39.95	37.95	282
MEN86504	MEN C-50/4 RC SYSTEM CHARGER	36.95	33.25	282

### C-50/4 AUTOMATIC R/C SYSTEM CHARGER

An automatic R/C system charger that quick charges the receiver and transmitter packs and switches into trickle charge when full charge is reached. It is said to extend the life and increase the capacity of batteries by clearing internal shorts due to its high current, pulsed output.

Plugs into a 110V outlet and will normally fully charge to the transmitter and receive batteries within 30 minutes. If left on longer the unit automatically goes to trickle charge which can be left on indefinitely.



**NEVER FORGET TO CHARGE  
YOUR RC SYSTEM AGAIN!**

### NICKEL CADMIUM → GLOW PLUG STARTER with HANG-ON CONNECTOR\* Pat. Pending



#### "Pocket Booster"

1.2 SCL  
Sub 'C' Cell  
7/8 X 1-9/16  
1 1/2 oz.

complete unit

- Rechargeable NI-CAD battery. Made in U.S.A.
- Surplus, reconditioned. Can be used over and over.
- Provides a hot glow to any plug.
- For R/C, U-Control and Free Flight models.

**NEW!** Hang-On connector eliminates all booster wires and clips. Just hang the battery on the glow plug. Lift off when the engine starts. Truly the easiest starting battery yet devised.

TAT2C096	TATCNE #96 BATTERY CHARGER	6.00	5.90	282
TAT19095	TATCNE #95 GLOW PLUG STARTER	7.50	6.75	282

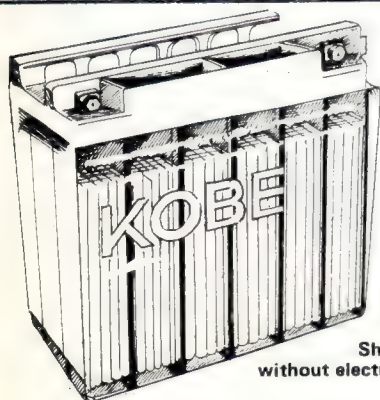
## TATONE

### BATTERY CHARGER

special for "Pocket Booster"



- 100 MA for 1.2 Amp battery
- Charges in 16 hours
- Can be used for multiple packs at longer charging time



Shipped  
without electrolyte.

## TOWER HOBBIES

### 12 VOLT MOTORCYCLE BATTERY

The illustration to the left is a 12 volt motorcycle battery. Tower imports or buys these from several sources, therefore, sometimes they are KOBE, sometimes YUASA, sometimes etc. Therefore the battery you receive might differ in appearance, but they are all 12 volt standard lead acid motorcycle batteries that have between 4 and 6 amp - hr ratings. They are perfect for all electric starters, pumps, etc., as well as for many of the power panels on the market. Use the Tower 12 volt battery charger below to charge this battery.

**TOWER 12 VOLT BATTERY CHARGER:** This wall charger charges at a .5 amp - hour rate and is ideal for 12 volt wet or gel-cell batteries.

TCW19C00	TCWER 12 V STARTER BATTERY-WET	25.95	16.95	282
TCW191C0	TCWER BATTERY CHARGER - 12 V.	13.95	8.95	282



# ASTRO FLIGHT (AFI)

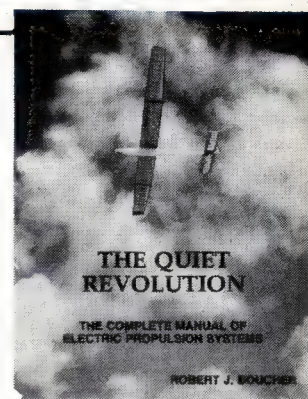
This book tells you everything you ever wanted to know about electric flight and many things that we bet you haven't even dreamed of yet. Over 100 photos and detailed drawings of every type and description that you can build and operate. Free flight planes, RC planes, scale models, autos, boats, even manned electric planes and solar powered planes. Extensive references of successful designs and where to get plans. What kits are available to use with your motor. A list of electric articles in the leading U.S. magazines. Dos and don'ts and other helpful hints. This book is a must for everyone who owns an electric system or is thinking about buying one. See page 228 for AFI electric motors and page 28 for AFI electric RC planes.

AF190C00 AFI THE QUIET REVOLUTION BOOK

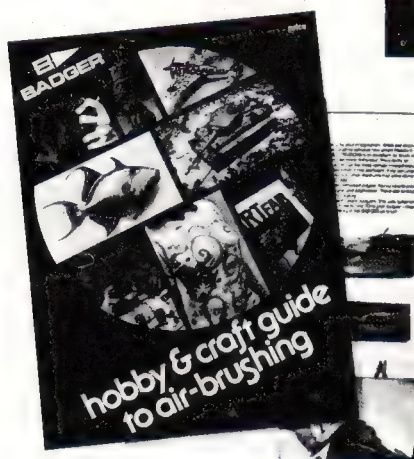
5.95 5.50 283

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# BADGER



## HOBBY & CRAFT GUIDE

Here's a do-it-yourselfers' dream book.

32 full color pages featuring over 140 color photographs of step-by-step airbrushing techniques for spraying model trains, planes and cars, figurines and ceramic plates, spraying on velvet and t-shirts and many other hobby and craft projects.

21 BIG how-to sections on a variety of subjects such as preparation for painting, mixing paints, the art of model camouflage, spraying scenery and dioramas, weathering techniques and much more.

BAD9C00 BADGER HOBBY & CRAFT GUIDE  
BAC9C01 BADGER CUSTOM AIRBRUSH GUIDE

4.95 4.70 283  
9.95 8.95 283

## CUSTOM AIRBRUSH GUIDE

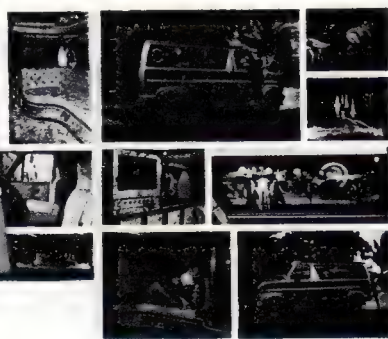
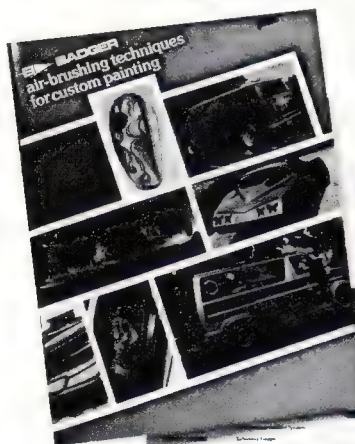
Finally—A custom painting manual for everyone who wants to "do it right"

48 full color pages of how-to information and instructions that customizing enthusiasts have asked for.

Hundreds of step-by-step color photographs including, Prepping for Paint, Choosing the Right Equipment and Final Finishing.

Page after page of unique techniques like Three Dimensional Effects, Blow-Ups and Freak Drops, Cobwebbing, Flames and Ribbons & Scrolls.

Details on Spray masking, Pin Stripping, Murals, Cartoon Rendering and more.



# EDSON

For many years, model aircraft builders were limited to finishing materials that required advanced skills in brushing or spraying. Since all were liquid, all were subject to a variety of problems. About 12 years ago a completely new concept in model aircraft finishing was developed — that of heat shrink plastic covering. This new material has become virtually the standard finishing method for a majority of sport and competition

modelers with its ease of application, limitless finish life, simple repair qualities and gorgeous coloring. This book was written to help the modeler achieve a beautiful finish with this space age material. The techniques shown were developed over many years and will show the modeler how to use the covering to its best advantage. 32 pages — full color — step by step instructions — by Edson Enterprises, Inc.

ED59C00 APPLYING HEAT SHRINK PLASTIC

5.95 5.75 283





# BOOKS

EVERYTHING YOU SHOULD KNOW

ABOUT

RADIO CONTROL FLYING

OR

HOW TO GET YOUR PLANE OUT OF YOUR R/C MIND



- A BOOK OF CRASH PREVENTION TECHNIQUES
- The first book to teach about landing to fly R/C
- How to avoid most of the major accidents of flying
- The only real training system for beginners

This book should be on the shelf of every R/C modeler.

## CONTENTS:

**CHAPTER 1. AIRPLANE SELECTION:** How to find that instructor. How to select the trainer. Important building points. ARF models. Proper use of glue. Alignment. Experience in using high performance full house 60 power airplanes as trainers.

**CHAPTER 2. SELECTION AND INSTALLATION OF RADIO EQUIPMENT AND CONTROLS:** Advantages and disadvantages. Importance of proper mode and instructor. R/C frequencies and flags. Installation of hinges — control horns — push rod: preferred types. Points to avoid future trouble in clevis, bellcranks and servo mounting. Tips on prevention of future radio problems. Check systems after installation. Landing gear trouble prevention.

**CHAPTER 3. TEST FLYING AND TRIMMING:** Checks. Helping the experienced flyer trim your plane. Corrections. Damage repairs. Flying: what to expect. Only 3 things to learn. What to do when the airplane is coming back. Learning coordination of controls.

## CHAPTER 4. FLYING — WITHOUT CRASHES:

The importance of the instructor. Orientation problems. What to do when confused. Torque problems. Proper landing procedure to learn. Colors — importance in first airplane. Sun problems and weather problems. Flight Logs.

**CHAPTER 5. THE POWER PACKAGE — ENGINES AND ACCESSORIES:** Safe way to start. Engine break in. Engine mounting. Twin and Wankel engines. Mufflers and pressure systems. Carburetors and adjustments. Fuels and fuel lines, filters, fuel tanks, glow plugs, battery life on glow plugs. Balancing propellers. Propeller sizes. Propeller selections.

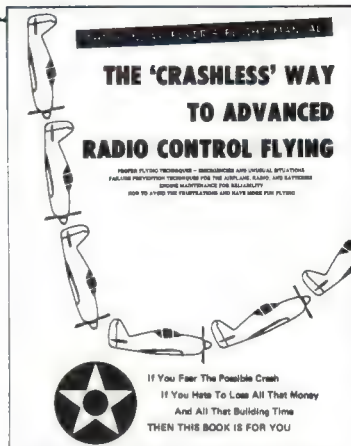
**CHAPTER 6. CRASH CAUSES AND PREVENTION:** Breakdown of causes. Pilot error, servo problems, radio interference, battery problems, and radio problems. Chain of events crashes. Vibrator range checks. Maintenance, Transmitter and receiver range test.

**APPENDIX:** Practice techniques, Modes, Magazines and Models, Hardware sizes, AMA safety code and membership.

# J.R. SALES CO.

## Harold Cunningham's AIRPLANE SAVING BOOKS CRASH PREVENTION

The Most Popular And Useful Books Available



## CONTENTS:

**CHAPTER 1. SAFE FLYING TECHNIQUES CRASHES AND PREVENTIONS:** Safe Second Degree Crashes, Distraction Crashes, Dangerous Aerobatics, Elevator Crashes, Dual Damage Crashes, Take Off Stalls and Problems, Control, Landing Turn Stalls, Safe Crosswind Landings, Techniques, Improved Landing, Faster Climb and Prevention, Minor Airplane Crashes, Intermediate Crashes, Hot Airplane Flying, Unusual Event Accidents, Weather and Wind Problems, Turbulence, Emergencies and Unusual Situations, Mist Air Collisions, Danger of Sunburn, Spin Recovery.

**CHAPTER 2. TAME THAT DOG:** Changes to Make Your Airplane Fly Right, For Safe Flying, Unsafe Factors, Pilot Error, Tailspin Tendencies, Effects of Strong Center of Gravity, Effects of Wrong Engine Thrust, Improper Orientation, Effects of Wing Warps, Effects of Excessive Right Engine Thrust, For and Runoff Problems, Solving a Turn, Turn Problems, Airplane Arrangements, Wing, Wingless Wing Airplanes, Advantages of Low-Wing Aircraft, Horizontal Stabilizer and Thrust Line.

## CHAPTER 3. RADIO, BATTERY, AND SERVO CRASH

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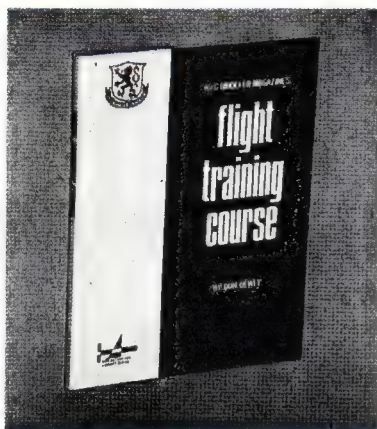
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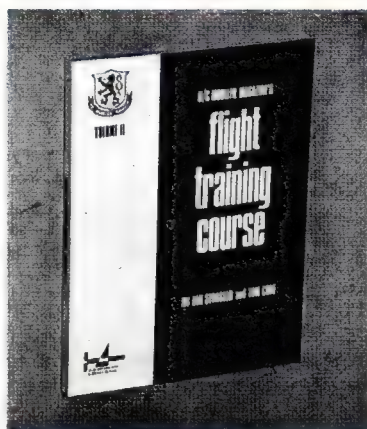
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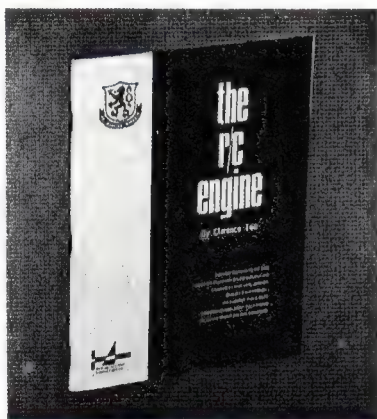
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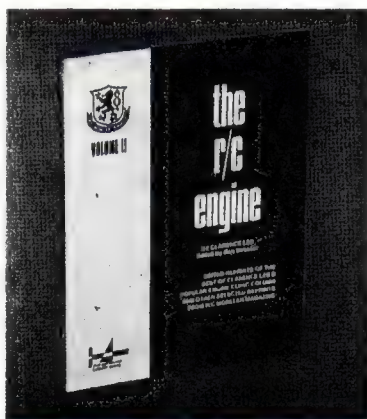
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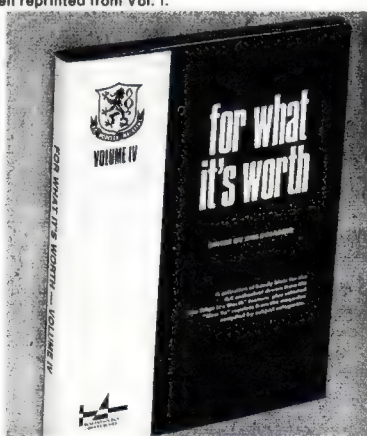
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## BUILDING EQUIPMENT

Possessing the appropriate building equipment can make the difference between a kit taking one week to build or a month; the difference between a beautiful, well-finished model or one that looks like it was built with a pick-ax; the difference between enjoying a building project or one that's characterized by lots of sweat, cursing, and band-aids. Following is a list of some of the tools you'll find in this section. Most of these items are quite inexpensive and can make your building projects faster, neater, and much more enjoyable.

When you need a high quality building jig there is one easy choice, A-Justo-Jig. This wing jig allows you to build wings up to 6 feet in length, which means it will work for models with up to a 12 feet wingspan. This jig allows you to bring your wing nearly to completion before it has to be removed. A-Justo-Jig also includes a fuselage jig to aid you in building true fuselages. Since the A-Justo-Jig is made from aluminum and steel, it is nearly indestructible and should last forever. A great investment and time saver, especially if you do lots of building.

For sanding that model or its parts we have a good selection of excellent tools. ADC supplies an assortment of self-adhesive sandpaper as well as mini and Tee Bar sanders. The Tee Bars do a nice even job of sanding larger surfaces. They prevent an uneven sanding job that sometimes happens when pressing sandpaper with your fingers. For power sanding, Dremel has the excellent model No. 730 Disc-Belt sander. This tool really saves the time and arm muscles. It has plenty of power for the big jobs. The disc portion of the 730 features a table which tilts 45 degrees and includes a mitre gauge for accurate sanding.

Dremel also produces the No. 381, 572, and 580 power tools which are very popular among modelers. The model 381 is an outstanding all-around tool for carving, grinding, polishing, sanding, drilling, engraving, cutting, deburring, and much more. This heavy-duty unit features ball-bearings and variable speed. Other accessories made for the No. 381 include a router attachment, moto-tool holder, drill press, and speed control. The No. 572 is a must for every workshop. It not only cuts, but with the power take-off you can attach a buffer, sanding disc, or flexible shaft. The No. 580 4-inch tilt arbor table saw is very rugged and can cut up to a one inch thickness.

If you need clamps, Kraft, Hobby Helps, and X-Acto provide all sorts of clamps for every holding job you'll need. There are a variety of sizes and shapes for each type of task you'd need done.

If you need a vise, we have the Pana-Vise, the X-Acto Mini-Vacu-Vise, and the Dremel D-Vise. These should provide enough choices to handle the smallest to the largest building project.

For knives and cutting tools, check out X-Acto, Coverite, and Tower Hobbies. X-Acto has just about every kind of cutter you'd want. Coverite supplies its "Trimit" knife, which is designed for trimming any type of covering material. If you just want a knife, then try the Tower Hobbies no. 1 knife handle and No. 11 blades.....you'd be hard pressed to find a better bargain, especially for such high quality.

Custom Model Products offers its "Z-Pliers". This handy little gadget will allow you to put a "z-bend" in 1/16" wire. This will eliminate having to buy clevis's for every connection. In addition, it will cleanly cut the wire to any desired length.

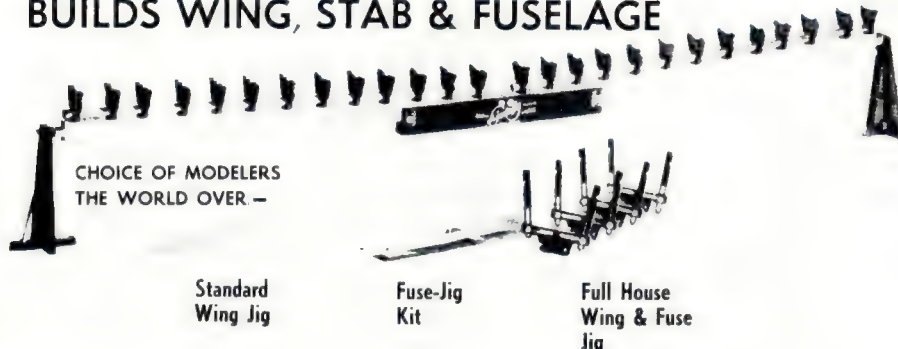
Micro-Flame brings us their mini torch sets. If you need to solder music wire, then you need this gem. It allows you to heat the wire to the proper temperature to insure a good solder joint. If you use it with the Sta-Brite silver solder we also handle, you'll get a good, strong solder joint every time. Just great for the landing gear wire on those 1/4 scale ships.

After you've brought your bird to completion, but still short of applying the finishing, you should use the Robart incidence meter. Its use will insure that the wing and stabilizer are mounted onto the aircraft at just the desired angle with respect to the engine thrust line and to each other. With this tool you should never have a plane with the wing out of alignment because of an out-of-true wing saddle.

Finally, although many will not consider the next series of products building equipment, they are needed for most types of model construction. We're talking about the high quality balsa wood produced by Midwest Products. We also handle their spruce in selected sizes, maple motor mount stock and a variety of plywood sizes.

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## BUILDING EQUIPMENT



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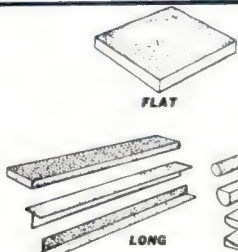
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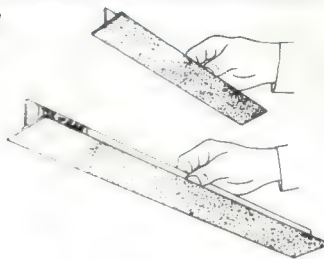
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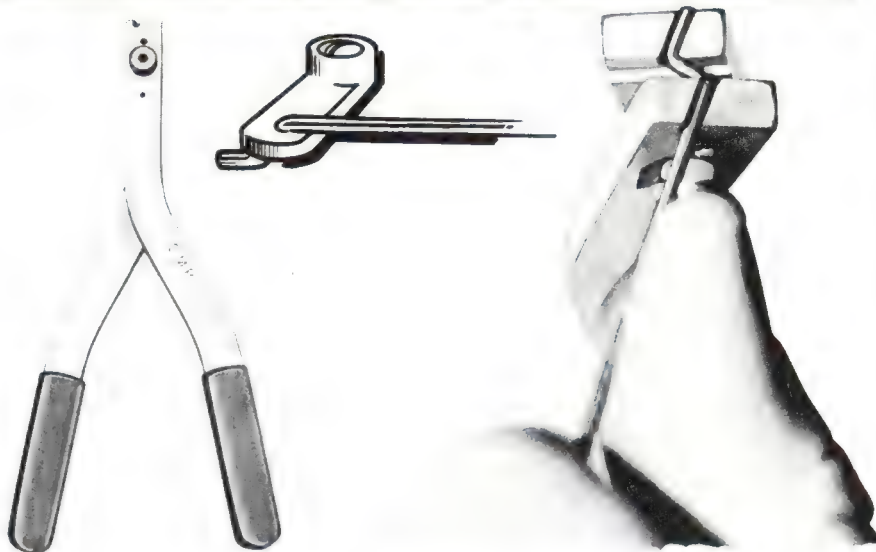
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CCV45C00 COVERITE TRIM-IT KNIFE

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DRE34580	DREMEL #580 TABLE SAW	109.95	73.95	296	DRE35581	DREMEL #8013 580 VACUUM ATCHMT	1.50	1.45	297
DRE34701	DREMEL #701 DELUXE MOTO-LATHE	69.95	48.95	289	DRE35582	DREMEL #8014 580 SAWCUST BAG	5.95	5.65	297
DRE34730	DREMEL #730 DISC-BELT SANDER	99.95	66.95	297	DRE35640	DREMEL #8040 730 BELT 50 GRIT	3.95	3.75	297
DRE34914	DREMEL #2214 C-VISE	26.95	21.95	296	DRE35641	DREMEL #8041 730 BELT 80 GRIT	3.95	3.75	297
DRE35059	DREMEL #990196 FLEXIBLE SHAFT	15.75	13.40	291	DRE35642	DREMEL #8042 730 BELT 120 GRIT	3.95	3.75	297
DRE35060	DREMEL #8029 SAW BLADES-FINE	1.40	1.35	291	DRE35643	DREMEL #8043 730 BELT 180 GRIT	3.95	3.75	297
DRE35061	DREMEL #8030 SAW BLADES-COARSE	1.50	1.45	291	DRE35644	DREMEL #8044 730 BELT 240 GRIT	3.95	3.75	297
DRE35115	DREMEL #115 STEEL CUTTER	3.00	2.75	296	DRE35645	DREMEL #8045 730 BELT 320 GRIT	3.95	3.75	297
DRE35193	DREMEL #193 STEEL CUTTER	3.00	2.75	296	DRE35650	DREMEL #8050 730 DISC 50 GRIT	3.95	3.75	297
DRE35194	DREMEL #194 STEEL CUTTER	3.00	2.75	296	DRE35651	DREMEL #8051 730 DISC 80 GRIT	3.95	3.75	297
					DRF35652	DREMEL #8052 730 DISC 120 GRIT	3.95	3.75	297

### DREMEL MOTO-SAW model 550

Safe, Versatile for Home and Shop



MOTO-SAW MODEL 550

Great, low priced hobby, craft and home tool. Make or repair models, mini furniture, pull toys. Perfect for home projects.

An exciting new budget-priced, portable scroll saw with 12" throat capacity. Easy to use and safe . . . cuts intricate craft patterns, soft wood up to 1 1/2" thick, hard wood 3/4", Plexiglas, styrofoam, thin gauge metals and leather.

MOTO-SAW helps make your creative ideas a reality. It saws quickly and easily with professional looking results.

Light weight (only 9 lbs.) and compact, it can be taken to the job and set up on table top, card table or bench. Ideal for apartment or home. Stores in only a 8 1/2" by 18" space.

MOTO-SAW has a quiet running 3,450 RPM, 115 V, 60 Hz, AC motor. Long life oil impregnated bronze bearings. Will not interfere with TV or radio reception.

### DREMEL MOTO-LATHE model 701 Lets Your Imagination Show



DELUXE MOTO-LATHE MODEL 701

MOTO-LATHE sets up quickly on table, workbench or kitchen counter top. It's compact and light weight (only 9 lbs.). Perfect for apartment, home or workshop use. Requires only 6" x 18" of space in the closet or storage cabinet. A 16-page "How-To" manual gets you started quickly and easily.

MOTO-LATHE does both spindle and face plate turnings. A handy, built-in drive center shaft lock makes it easy to remove and attach headstock centers and face plate in minutes.

MOTO-LATHE is powered by a husky 1.4 amp, 115 V, 60 Hz. AC motor which runs quietly at 3,450 RPM . . . a perfect speed to complete miniature masterpieces quickly and with precision. Will not interfere with TV or radio reception.

### DREMEL MOTO-FLEX TOOL

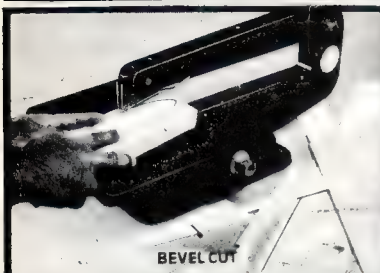
Cool Running Powerful Model 232



Model 232

The powerful, miniature high speed flexible shaft tool with "sure" finger tip control. The Moto-Flex tool adds a new creative dimension to working . . . in wood, plastics, gems, rocks, leather, glass, minerals, metals and ceramics. Now you can grind, polish, slot, deburr, sand, carve, sharpen, texturize, rout, cut and engrave . . . with speed, power and precision. Features a cool running, slim grip ball bearing handpiece, 25,000 RPM motor, and 34" long vinyl covered flexible shaft. Handy to get into those hard-to-reach spots. Beginner and professional alike will enjoy this Dremel creative power tool. It can be bench mounted on a 350° swivel base or wall mounted with handy hanger bracket.

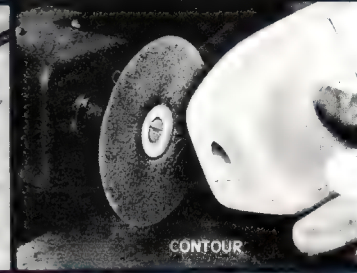




IT'S A SCROLL SAW



IT'S A DISC SANDER



# DREMEL® MOTO-SHOP®

## The complete multi-purpose workshop

• 15" SCROLL SAW/WORKSHOP COMBINATION • STRONG, RELIABLE 3450 RPM BALL-BEARING MOTOR • POWER TAKE-OFF FOR OVER 100 ATTACHMENTS AND ACCESSORIES • TABLE TILTS 45° RIGHT OR LEFT FOR BEVEL CUTTING

Why struggle with a lot of different power tools, when the Moto-Shop alone does it all? It's a 15-inch scroll saw with power takeoff that converts to all the tools shown above. Lets you handle simple projects or big jobs with ease and precision. As a scroll saw, it handles everything from small scroll work to full size furniture work. As a disc sander, it shapes, sands rough edges, trues uneven surfaces. As a buffing wheel, its many uses include polishing

jewelry, silverware, golf clubs. And as a flexible shaft tool, it's handy for grinding, drilling, carving, shaping.

The Moto-Shop is compact. It sets up easily on any table or workbench, and can be stored in a closet, under a workbench, etc.

Safe and easy for beginners to use. Powerful and accurate for skilled craftsmen. Great for women and youngsters, too. You'll call it the best power tool investment you ever made.

### APPLICATIONS

Handle everything from small, precision scroll cutting to full size furniture work. Cuts standard 2x4's, non-ferrous metals, plastic, tile, styrofoam, face brick and much more. Handy sanding discs for shaping and finishing hobby, craft, do-it-yourself projects. Use it to bevel cut, carve, scroll cut, grind and drill.

### FEATURES

- 1 **BLADE TENSION LEVER**—Cam action keeps blade taut. No tension spring to adjust. Change blades quickly.
- 2 **3-WAY BLADE HOLDER**—Turn blade to right or left to handle extra long stock.
- 3 **BLADE GUARD**—Blade guard also acts to hold work-piece.
- 4 **ADJUSTABLE TABLE**—Table adjusts up or down, makes new sections of blade available for cutting to extend blade life.
- 5 **BALL BEARING ROTARY MOTOR**—

115V, 60 cycle A.C., 3450 RPM. Will not interfere with radio, TV.

- 6 **POWER TAKEOFF**—For utilizing accessories to carve, grind, sand and polish.
- 7 **TILTING TABLE**—Table tilts to 45° for bevel cutting.
- 8 **DIRECT DRIVE BLADE ACTION**—Increases cutting power, reduces vibration and blade breakage.

### SPECIFICATIONS

- Model .....571
- Weight .....12 lbs. 7 oz.
- Motor, Shaded pole induction type
- Amps .....1.4
- Strokes .....3450 SPM
- Volts .....115V, 60 Hz. AC
- Bearings .....Ball bearings
- Throat capacity .....15"
- Size .....23" L X 9 1/4" W X 9 1/2" H.
- Cutting capacity, Straight or bevel, material up to 1 1/2" thick
- Power takeoff ...Direct drive 3450 RPM centrifugal and shoulder coupling
- Grounding .....3-wire plug

### AVAILABLE IN TWO MODELS:

#### MODEL 571

##### Scroll Saw/Sander Combination

Includes No. 571 Moto-Shop with rubber backing pad and adapter, three sanding discs, four blades. Other attachments available for added flexibility.

#### MODEL 572

##### Deluxe Moto-Shop Scroll Saw/Sander Combination

Includes 571 Moto-Shop with rubber backing and adapter, nine saw blades, six sanding discs, one cloth wheel, one wire brush, one polishing compound stick, one flexible shaft and 12-piece accessory set.





REMOVE SCRATCHES



POLISH



CARVE

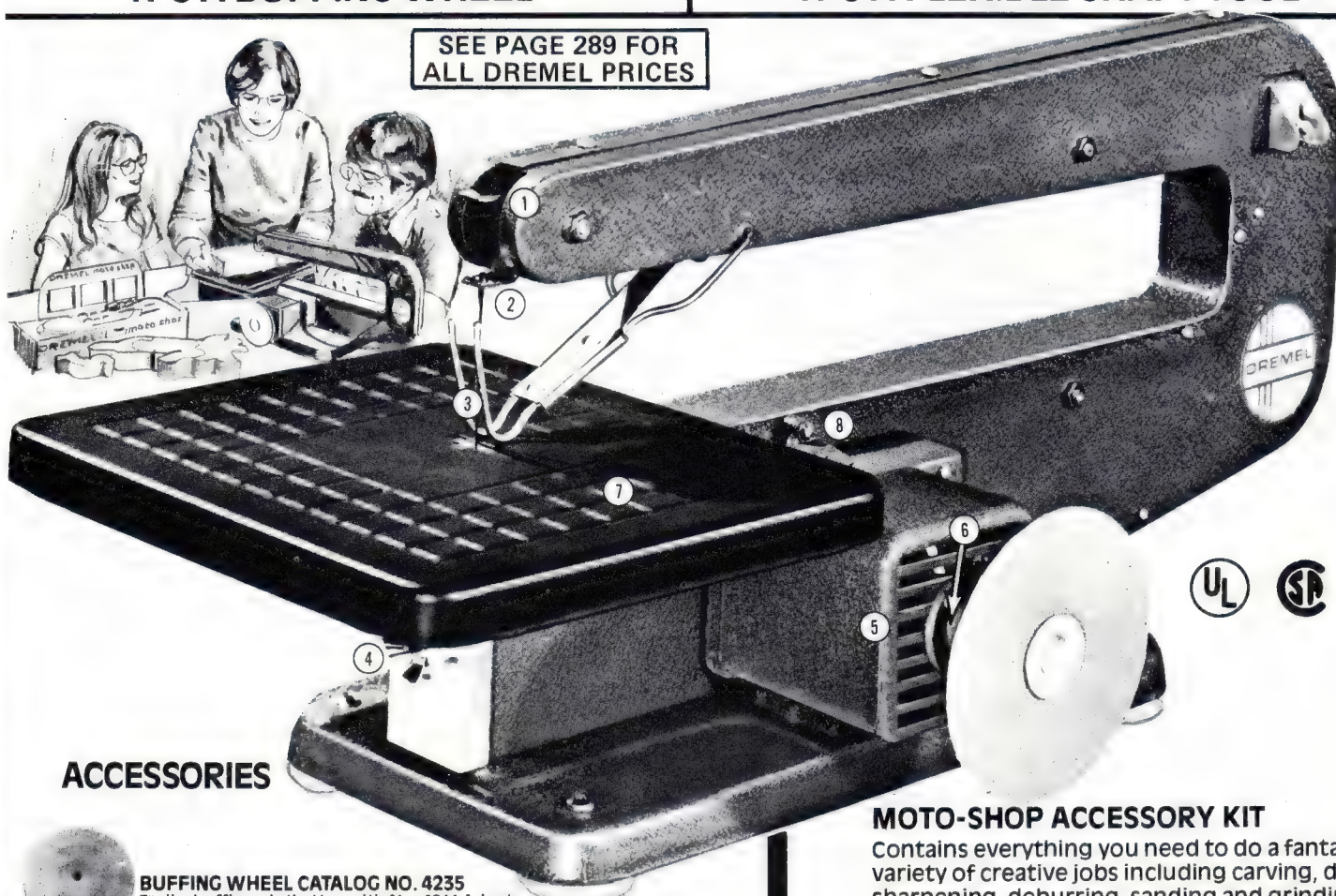


GRIND

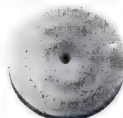
**IT'S A BUFFING WHEEL**

**IT'S A FLEXIBLE SHAFT TOOL**

SEE PAGE 289 FOR  
ALL DREMEL PRICES



## ACCESSORIES



**BUFFING WHEEL CATALOG NO. 4235**  
3" dia. buffing cloth. Use with No. 4211 Adapter



**RUBBER BACKING PAD CATALOG NO. 4214**  
4" dia. Rubber backing pad for use with sanding discs. Use No. 4211 Adapter

**SAND DISCS CATALOG NOS. 4227—1/2 grit, 4228—2/0 grit, 4229—4/0 grit.** Sanding discs of varying coarseness:



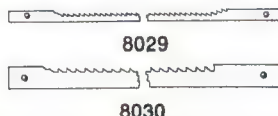
**FLEXIBLE SHAFT CATALOG NO. 990196**  
A 2-1/2" neoprene covered flexible shaft w/plastic handpiece & coupling adapter.

**ARBOR ADAPTER CATALOG NO. 4211**

Arbor adapter to be used to attach rubber backing pad and sanding discs and 3" buffer cloth to power take-off.

**SAW BLADES**

**CATALOG NOS. 8029, 8030**  
Fine tooth saw blade No. 8029. Coarse tooth saw blade No. 8030. For use with Moto-Shop Models Nos. 571 and 572. (Blades: 2 3/4 inches, pin to pin.)



## MOTO-SHOP ACCESSORY KIT

Contains everything you need to do a fantastic variety of creative jobs including carving, drilling, sharpening, deburring, sanding and grinding.

## MODEL 573



## KIT CONTENTS

- 1 wrench
- 1 flexible shaft
- 1 drum sander and 4 sander bands
- 5 saw blades
- 2 emery wheel points
- 1 high speed cutter
- 1 drill bit
- 3 collets
- 1 polishing compound stick
- 3 sanding discs
- 1 wire brush
- 1 silicon point
- 1 buffing wheel
- 1 arbor adapter
- 2 bristle brushes





## MODEL 381

### Heavy Duty Variable Speed Moto-Tool Kit With 34 Accessories

(100% Ball Bearing Construction)

(For tool only, specify Model 380)



Fingertip speed control  
5000 through 25,000 RPM

#### DIAL THE SPEED TO FIT THE NEED.

Dial slow speeds for: soft or fragile materials, intricate carving, deep drilling.

Dial fast speeds for: routing jobs, shaping edges, grinding, engraving, cutting.

### APPLICATIONS

There is a wide variety of creative jobs you can handle with the Model 381, our very finest Moto-Tool kit. Carve, grind, polish, sand, drill, engrave, cut, deburr, and more. Work in wood, stone, plastics, leather—even metals. You'll handle everything from rough shaping to intricate detail work with speed, ease and accuracy. Also great for woodcarving and lapidary.

### FEATURES

- Ball bearing construction for long life, smooth operation.
- Compact, well balanced for effortless handling.
- Impact resistant housing.
- Permanent magnet motor provides steady, dependable power.

### SPECIFICATIONS

- Model ..... 380 (tool only)/381 Kit
- Weight ..... 1lb., 2 oz.
- Motor ..... Universal permanent magnet field
- Control ..... Variable speed
- Amps ..... 0.75 Low speed  
0.9 High speed
- Speed ..... 5000 thru 25,000 RPM
- Volts ..... 115V, 60 Hz. AC
- Bearings ..... Ball bearings
- Collets available ..... 1/8", 3/32", 1/16", 1/32"
- Grounding ..... 3-wire plug

## DREMEL

### KIT CONTENTS

- Model 380 Moto-Tool with 1/8" collet
- 1 wrench
- 3 cutoff wheels
- 7 disc sanders
- 1 felt wheel (1/2")

- 1 high speed twist drill
- 1 high speed cutter
- 2 mandrels
- 3 bristle brushes
- 1 drum sander
- 3 coarse sander bands

- 1 dressing stone
- 1 felt polishing wheel (1")
- 1 collet (3/32")
- 7 mounted wheel points
- 1 storage box

(SUBSTITUTIONS OF ACCESSORIES OF EQUAL OR GREATER VALUE MAY BE MADE)





**DREMEL**



**Variable speed Moto-Tool kit with 34 accessories**

**SEE PAGE 289 FOR ALL DREMEL PRICES**

## MODEL 371

### APPLICATIONS

Perfect for hobbies, crafts work, wood carving, lapidary, do-it-yourself projects. Carve, grind, polish, sand, drill, engrave, deburr. Work in wood, stone, plastics, leather—even metals.

### FEATURES

- Impact resistant housing.
- Permanent magnet motor for steady power, smooth operation.
- External brushes for easy replacement.
- Lifetime lubricated sleeve bearings.

### SPECIFICATIONS

- Model ..... 370 (tool only)/371 Kit
- Weight ..... 1lb., 3 oz.
- Motor ..... Universal permanent magnet field
- Control ..... Variable speed
- Amps ..... 0.75 Low speed / 0.9 High speed
- Speed ..... 5000 thru 25,000 RPM
- Volts ..... 115V, 60 Hz. AC
- Bearings ..... Bronze sleeve
- Collets available ..... 1/8", 3/32", 1/16", 1/32"
- Ground ..... 3-wire plug

### KIT CONTENTS

- |  |                            |                          |
|--|----------------------------|--------------------------|
| • Model 370 Moto-Tool with 1/8" collet | • 1 high speed twist drill | • 3 coarse sander bands  |
| • 1 wrench                             | • 1 high speed cutter      | • 1 dressing stone       |
| • 3 cutoff wheels                      | • 2 mandrels               | • 1 polishing wheel (1") |
| • 7 disc sanders                       | • 3 bristle brushes        | • 1 collet (3/32")       |
| • 1 felt wheel (1/2")                  | • 1 drum sander            | • 7 mounted wheel points |
|  |                            | • 1 storage box          |

(SUBSTITUTIONS OF ACCESSORIES OF EQUAL OR GREATER VALUE MAY BE MADE)



**Heavy duty 100% ball bearing construction constant speed Moto-Tool kit with 34 accessories**

(For tool only, specify Model 280)

## MODEL 281

### APPLICATIONS

Ideal for wood carving, shaping, routing, drilling, sanding, polishing. Work in wood, plastics, metal, leather. Use it for all your crafts, hobby and do-it-yourself projects.

### FEATURES

- 30,000 RPM reliable permanent magnet motor.
- Impact resistant housing.
- Ball bearing construction.

### SPECIFICATIONS

- Model ..... 280 (tool only) /281 Kit
- Weight ..... 1lb., 2 oz.
- Motor ..... Universal permanent magnet field
- Control ..... On/Off
- Amps ..... 0.9
- Speed ..... 30,000 RPM
- Volts ..... 115V, 60 Hz. AC
- Bearings ..... Ball bearings
- Collets available ..... 1/8", 3/32", 1/16", 1/32"
- Grounding ..... 3-wire plug

### KIT CONTENTS

- |  |                         |                               |
|--|-------------------------|-------------------------------|
| • Model 280 Moto-Tool with 1/8" collet | • 1 high speed cutter   | • 1 dressing stone            |
| • 1 wrench                             | • 2 mandrels            | • 1 felt polishing wheel (1") |
| • 3 cutoff wheels                      | • 3 bristle brushes     | • 1 collet (3/32")            |
| • 7 disc sanders                       | • 1 drum sander         | • 7 mounted wheel points      |
| • 1 felt wheel (1/2")                  | • 3 coarse sander bands | • 1 storage box               |
| • 1 high speed twist drill             |                         |                               |

(SUBSTITUTIONS OF ACCESSORIES OF EQUAL OR GREATER VALUE MAY BE MADE)





## MODEL 271

Constant speed Moto-Tool kit  
with 34 accessories

(For tool only, specify Model 270)



### APPLICATIONS

Handy for most hobby, craft and do-it-yourself applications. Fine balance of speed, power and precision for work in a wide range of materials.

### FEATURES

- Reliable, permanent magnet motor delivers 30,000 RPM.
- Permanently lubricated bronze sleeve bearings.
- Rugged, lightweight housing.
- Compact, well balanced for easy use.

### SPECIFICATIONS

- Model .....270 (tool only) /271 Kit
- Weight .....1lb., 2 oz.
- Motor .....Universal permanent magnet field
- Control .....On/Off
- Amps .....0.8
- Speed .....30,000 RPM
- Volts .....115V, 60 Hz. AC
- Bearings .....Bronze sleeve
- Collets available .....1/8", 3/32", 1/16", 1/32"
- Grounding .....3-wire plug

### KIT CONTENTS

- Model 270 Moto-Tool with 1/8" collet
- 1 wrench
- 3 cutoff wheels
- 7 disc sanders
- 1 felt wheel (1/2")
- 1 high speed twist drill
- 1 high speed cutter
- 2 mandrels
- 3 bristle brushes
- 1 drum sander
- 3 coarse sander bands
- 1 dressing stone
- 1 felt polishing wheel (1")
- 1 collet (3/32")
- 7 mounted wheel points
- 1 storage case

(SUBSTITUTIONS OF ACCESSORIES OF EQUAL OR GREATER VALUE MAY BE MADE)



## MODEL 261

Constant speed Moto-Tool kit  
with 34 accessories



### APPLICATIONS

30,000 RPM motor and 34 accessories make easy work of all kinds of cutting, grinding, drilling, shaping and polishing jobs. Lightweight.

### FEATURES

- Permanently lubricated bronze sleeve bearings.
- Shaftlock pin for fast accessory changing.
- Ultra-light and compact for easy use.
- Rugged, lightweight housing.

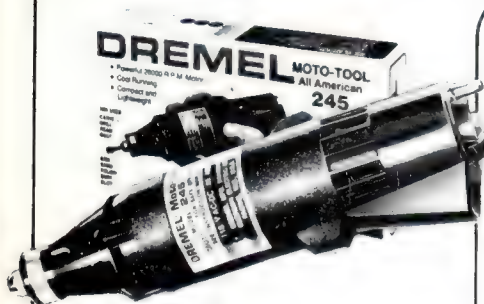
### SPECIFICATIONS

- Model .....260 (tool only)/261 Kit
- Weight .....13 oz.
- Motor .....Universal permanent magnet field
- Amps .....0.5
- Speed .....30,000 RPM
- Volts .....115V, 60 Hz. AC
- Bearings .....Bronze sleeve
- Collets available .....1/8", 3/32", 1/16", 1/32"
- Grounding .....3-wire plug

### KIT CONTENTS

- Model 260 Moto-Tool with 1/8" collet
- 1 wrench
- 3 cutoff wheels
- 7 disc sanders
- 1 felt wheel (1/2")
- 1 high speed twist drill
- 1 high speed cutter
- 2 mandrels
- 3 bristle brushes
- 1 drum sander
- 3 coarse sander bands
- 1 dressing stone
- 1 felt polishing wheel (1")
- 1 collet (3/32")
- 7 mounted wheel points
- 1 storage case

(SUBSTITUTIONS OF ACCESSORIES OF EQUAL OR GREATER VALUE MAY BE MADE)



## MODEL 245

Constant speed Moto-Tool kit  
with 13 accessories

### APPLICATIONS

An excellent hand grinder kit value that includes 13 popular accessories that let you grind, drill, sand, polish, slot and more. Motor generates 26,000 RPM for working with wood, plastics, metal.

### FEATURES

- Rugged, lightweight housing.
- Series wound motor provides steady, reliable power.
- Handy, built-in hanger.
- Self-contained shaft lock pin for fast accessory changing.

### SPECIFICATIONS

- Model .....245 Kit
- Weight .....15 oz.
- Motor .....Series wound
- Amps .....0.6
- Speed .....26,000 RPM
- Volts .....115V, 60 Hz. AC
- Bearings .....Bronze sleeve
- Collets available .....1/8", 3/32", 1/16", 1/32"
- Grounding .....3-wire plug

### KIT CONTENTS

- Model 245 Moto-Tool with 1/8" collet
- 1 wrench
- 3 emery cutoff wheels
- 3 sanding discs
- 2 mandrels
- 1 grinding wheel
- 1 felt polishing wheel (1")
- 1 emery wheel point
- 1 high speed 1/8" drill

(SUBSTITUTIONS OF ACCESSORIES OF EQUAL OR GREATER VALUE MAY BE MADE)





FOOT OPERATED MODEL NO. 217



TABLE MODEL NO. 219

## SPEED CONTROLS No. 217 and No. 219

### APPLICATIONS

Adjusts the speed of the Moto-Tool or Moto-Flex Tool from 0 to full RPM. Also provides exacting control of glue gun, soldering iron and other UL approved tools to 5 amps.

### FEATURES

- Fuse protects against overload and tool damage.
- Accepts double insulated or 3-wire tools.
- Solid state triac control prevents power loss and heat buildup.



USE WITH 245, 260, 270, 280 MOTO-TOOLS.

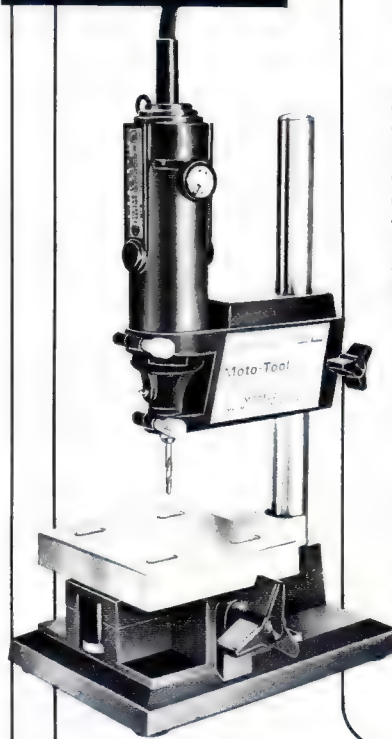


USE WITH DREMEL 232 MOTO-FLEX TOOL.



REGULATE SOLDERING IRONS, GLUE GUNS.

## DREMEL



## DRILL PRESS STAND No. 210

### APPLICATIONS

Converts Moto-Tool into a precision drill press when accurate drilling is a must. Also changes Moto-Tool into a fixed overhead router for routing or relief carving. (Special adapter required for Moto-Tool Model 260)

### FEATURES

- 4" x 4" table.
- Tool travel is 0" to 6".
- 3/4" maximum table travel.
- Table height adjustment dial and table height lock.
- Table slotted for clamps.
- 12" high, 3" throat.



FOR PRECISION DRILLING

## MOTO-TOOL® ATTACHMENTS

Increase the versatility of your Moto-Tool

SEE PAGE 289 FOR ALL DREMEL PRICES



## MOTO-TOOL HOLDER No. 2217

### APPLICATIONS

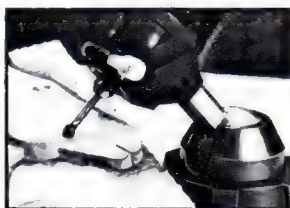
Locks Moto-Tool in any position, so workpiece can be controlled with both hands. (Special adapter required for Moto-Tool Model 260)

### FEATURES

- Adjust quickly to any angle around a 180° vertical plane and a 360° horizontal axis.
- Position locks instantly with a simple twist of base ring.



LAPIDARY WORK



WOOD CARVING

## ROUTER ATTACHMENT No. 229

### APPLICATIONS

Turns any Moto-Tool into a handy mini-router (special adapter required for Moto-Tool 260). Also dados, rabbets and chamfers. Uses special Dremel router bits or high speed cutters (see page 9).

### FEATURES

- Removable edge guide for free-hand routing on large work.
- Calibrated depth control.
- Maximum 3/8" adjustable depth.



FREE-HAND ROUT



## DREMEL

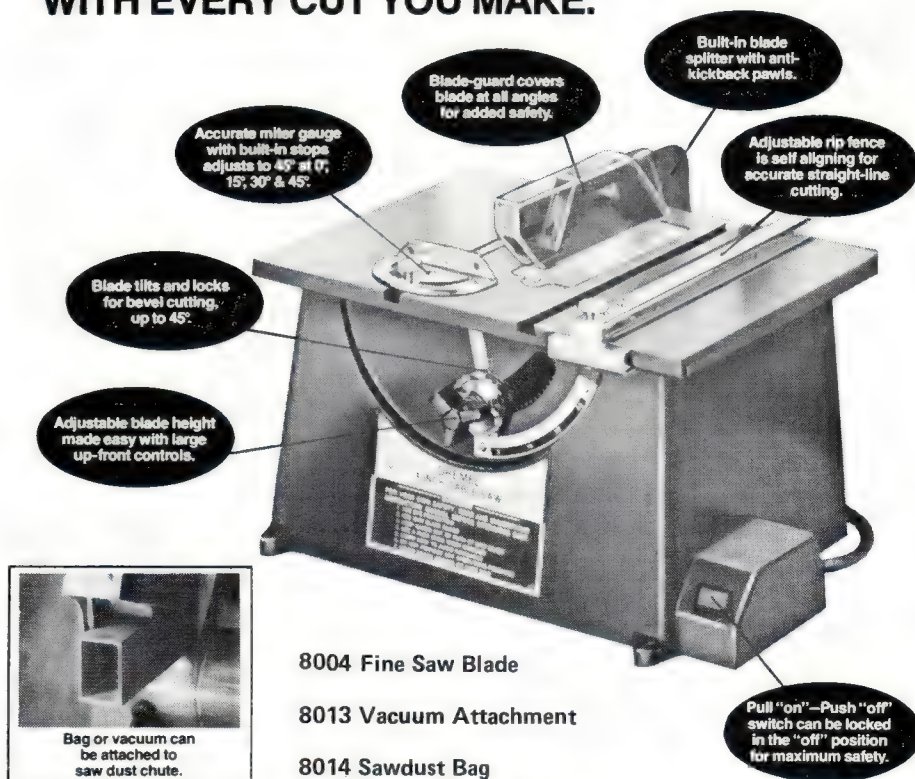
DREMEL, 4915-21st St., Racine, WI 43506 has introduced the new Dremel Model 580 motorized 4-inch table top saw. The saw, which measures 13" by 12" by 9", can be used for perpendicular cuts up to 1-inch, and is fully adjustable for mitered cuts up to 3/4-inch. The new Dremel Model 580 is designed for the do-it-yourselfer, hobbyist and craftsman for home or shop repairs, picture framing, model hobby and crafts work and general purpose sawing of wood and plastics. And yet, it is small enough to easily store in the home workshop, apartment closet, mobile home, garage and trailer—weighs less than 10 lbs. A 10-inch by 12-inch work table is provided on a sturdy glass-reinforced engineering plastic base with a 4-inch work area in front of the blade. The motor and blade tilt 45 degrees for bevel cuts. Locking depth and angle adjusting controls are all located up at the front of the table saw for easy accessibility. Safety-engineered throughout, a see through amber-colored blade guard covers the 4-inch combination blade at all depths and angle settings. Spreader and anti-kickback pawls keep the work from binding or kicking back at the operator. An "Alert Red" Pull-On/Push Off power switch has provisions for locking the saw in the off position.

The compact, table top saw has an anti-glare black surface. The Dremel Model 580 saw is powered by a ruggedly built 2.2 amp. 115 Volt, 60 Hz., AC, U. L. listed 9800 RPM motor with ball and sleeve bearings. A self-aligning adjustable rip fence and calibrated adjustable mitre gauge may be easily positioned on either side of the cutting blade. A convenient sawdust chute at the back of the motorized saw can be attached to a bag or vacuum cleaner.

The saw comes with a 4-inch combination blade (1/2-inch arbor hole), blade wrench and mounting screws. A fine finish saw blade is also available

## Dremel 580 4-inch tilt arbor table saw

### YOU WILL NOTICE THE BUILT-IN QUALITY WITH EVERY CUT YOU MAKE.



#### ACCESSORIES/PARTS:

- No. 8003 4" combination blade (30 teeth per inch)
- No. 8004 4" fine tooth blade (100 teeth per inch)
- No. 8013 Vacuum cleaner attachment only
- No. 8014 Saw dust bag with attachment
- No. 8015 Belt
- No. 8016 Blade Pulley
- No. 8017 Motor Pulley

#### SPECIFICATIONS:

Cutting capacity	1" thick
Table in 90° position	3/4" thick
Table in 45° position	9800 RPM (approx.)
Blade speed	4" diam., 1/2" round arbor
Blade size	10 5/32" x 1/4"
Belt (flat, non-stretch)	1 1/4" Dia.
Blade pulley	2.2 amp—115 V. 60 Hz. AC only. Ball-bearing/sleeve construction
Motor pulley	Table and base are made of rugged glass reinforced thermoset engineered plastic
Construction	Size (table) 12" W x 10" D
Size (table)	Size (overall) 13" W x 8 3/4" H x 11.5" D
Size (overall)	Size (carton) 16 1/2" W x 12 1/2" H x 14" D
Size (carton)	Shipping weight 13 lbs
Shipping weight	

## D-vise by Dremel

### HOLDS THE WORK EXACTLY WHERE YOU WANT IT.

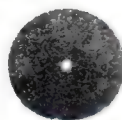
- 2 1/2" jaw opening, 2 3/4" jaw width for many different sized workpieces.
- Spring loaded handle stays out of the way of work.
- Soft jaw pads protect delicate work and fine finishes.

No. 2214



Precision machined slide rods provide parallel equally applied jaw pressure.

## MOTO-TOOL AND MOTO-SHOP ACCESSORIES



#### CHUCK COLLETS



#### CUTTING WHEEL No. 409

A handy emery wheel for slicing, cutting-off and similar operations. 36 discs per package.



193 194 196 115 MANDRELS—1/8" Shank

For Moto-Tools Nos. 245, 250, 260 Series 55-3 and 55-4, 270 Series 66-2, 280 Series 66-2, Nos. 370, 380 and Moto-Flex Tool No. 232

No. 480—1/8" No. 482—1/16" No. 481—3/32" No. 483—1/32"



#### Drum Sander Bands

1/2" dia. coarse grit—No. 408 1/2" dia. fine grit—No. 432

## DREMEL



#### SANDING DISCS

No. 411—36 sanding discs, coarse, 3/4" dia.



**DREMEL**

From Dremel  
Creative Power  
Tools...another  
great power tool  
innovation.

SEE PAGE 289  
FOR ALL  
DREMEL PRICES

# DREMEL<sup>®</sup> DISC-BELT SANDER.

- Sands, shapes, polishes, cleans and sharpens.
- Use on wood, metal, plastic, glass and ceramics.



## Replacement Belts

8040 50 Grit  
8041 80 Grit  
8042 120 Grit  
8043 180 Grit  
8044 240 Grit  
8045 320 Grit

## Replacement Discs

8050 50 Grit  
8051 80 Grit  
8052 120 Grit

**MODEL 730**

**Has all of  
these quality high-  
performance features and more.**

- Uses 1" wide x 30' long endless sanding belt.
- Uses 5" dia. sanding disc with adhesive backing.
- Fixed table for belt sanding.
- Tilting table for disc sanding.
- Miter gauge for accurate disc sanding.
- Simplified tracking adjustment for true running of the belt.
- No tool required to change from external to internal belt sanding.
- 3" throat depth for internal belt sanding.
- Removable platen provides a rigid sanding surface.
- Front-mounted on/off switch for easy access.
- Comes with 4 screws for mounting to work bench.

## SPECIFICATIONS

Belt size .....1" x 30"  
S.F.M. Belt .....2700  
R.P.M. Disc .....4400  
Motor . .110-120V, 60 hz., Universal,  
self-limiting brushes, 2.2 amps.

Belt Drive  
Dimensions . .Height-15", Width-10",  
Depth-11"

Weight (Approx) ..... 15 lbs.

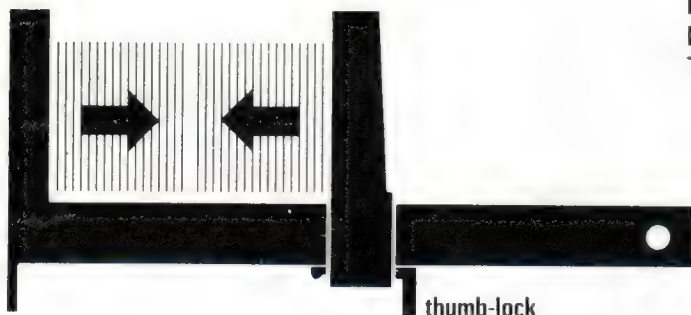
Note: Rendering and specifications subject to change



## HOBBY HELPS

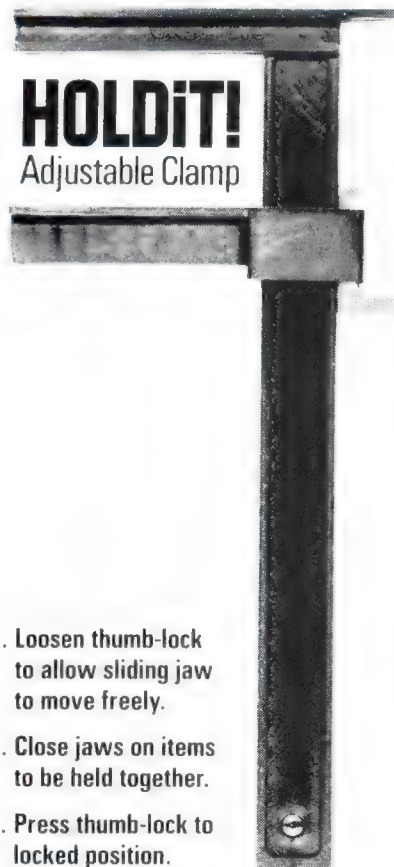
The HOLDIT! Adjustable Clamp is made from rugged glass reinforced polyester and is attractively displayed on a bright yellow card. The easy to follow instructions shown below are printed on the back of the card. Model No. 3 has an adjustable clamping capability to 3" maximum. Two clamps are skin packed on an 8½" x 7½" card.

The HOLDIT! Adjustable Clamp has proven to be a great help to the hobbyist, handyman and professional craftsman when gluing, pasting, soldering, laminating, or painting things that need to be held together or in place. Model No. 6 has an adjustable clamping capability to 6" maximum. Two clamps are skin packed on an 8½" x 7½" card.



IT'S EASY TO USE YOUR  
HOLDIT! ADJUSTABLE CLAMP  
TO GET THINGS TOGETHER:

1. Loosen thumb-lock to allow sliding jaw to move freely.
2. Close jaws on items to be held together.
3. Press thumb-lock to locked position.



HBB33030	HCBBY HELPS 3 INCH CLAMPS 2	2.29	2.15	298
HBB33060	HCBBY HELPS 6 INCH CLAMPS 2	2.89	2.75	298

## HOUSE OF BALSA

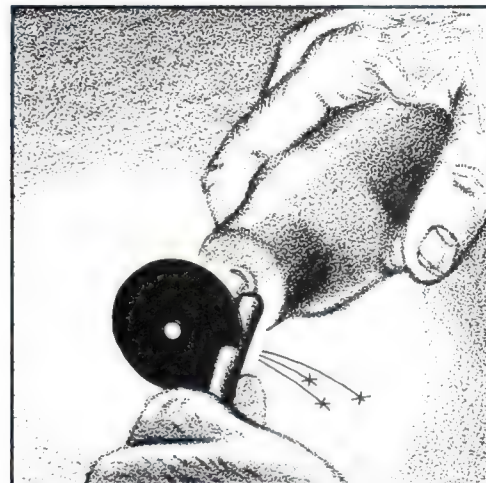
The safe  
grinding wheel  
**TUF-GRIND**

Package of two

Reinforced to prevent breakage and shattering. Strong enough to cut and grind just about anything — steel, fiberglass, plastics, wood, and so on.

It's the toughest and safest grinding wheel available.

Fits all standard motorized grinding tools.



HOU39C00	HOUSE OF BALSA TUF-GRIND	-2-	2.49	2.35	298
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## JCM SPECIALTIES

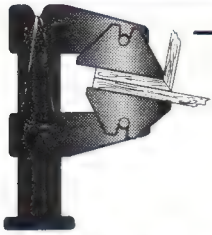


TAP & DRILL SETS

These excellent tap and drill sets are made of the finest quality steel for fast and easy drilling and tapping of motor mounts, etc. Available in the two convenient sizes that are most commonly used for motor mount bolts. Don't risk ruining another motor mount, try these!

JCM35440	JCM 4-40 TAP & DRILL SET	3.25	3.10	298
JCM35632	JCM 6-32 TAP & DRILL SET	3.25	3.10	298





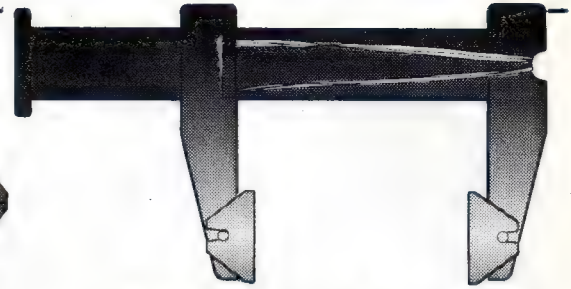
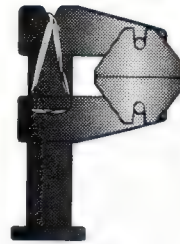
## modeler's clamps

Molded glass reinforced nylon clamps with tension provided by rubber bands. They can be adapted to a variety of construction techniques and glue will not stick readily to them.

Now featuring movable jaws to permit offset clamping, clamping non-parallel surfaces, and clamping in recessed areas. The ideal miniature clamp for hobby workshop, home, or general light mechanical use.

Pair of small clamps #KRA33104  
One large clamp #KRA33106

NOTE: Small clamps open up 1 1/4"  
Large clamp opens up 4"



**KRAFT**

KRA33104	KRAFT 200-104 1-1/4 CLAMPS	2	1.79	1.70	299
KRA33106	KRAFT 200-106 4 IN CLAMP		1.49	1.40	299

## microflame Miniature Gas Torch

- Great for Hobbies and Household Repairs
- 30 Piece Hardware Kit
- Lifelong Plastic Carrying Case

**5000°F**  
pin point  
flame



## MICROFLAME



## The Microflame Hardware Torch Kit #4400

### About the Microflame Torch

The Microflame Miniature Gas Welding Torch is a brazing and soldering tool which develops a 5000°F (2760°C) pin point flame using a mixture of Micronox™ and Butane gases in small, disposable cylinders. The Torch gives the user instantaneous and precise heat only where he or she needs it.

About the size of a pack of cigarettes, this completely self-contained miniature torch is the perfect tool for most lightweight brazing and soldering projects. A must addition to the home or shop work bench.

Designed especially for the hobbyist, craftsperson, home or apartment handyman, shop and office repairman, jeweler and metal sculptor, as well as the lab technician. The Microflame Miniature Torch gives the amateur, or professional, satisfactory results. Fitting neatly into pocket or tool box when not in use, the Microflame measure of portability, combined with its ease of use, truly makes it a multi-purpose tool.

This New 30-Piece Kit answers the call from dealers and users alike, who have been urging us to package the unique and useful Microflame Torch in a Hardware designed box. Now the Home Repairman and Saturday Mr. Fixit will have a permanent storage and carrying case for his or her own Miniature Gas Torch. Packed in a durable, yet attractive, molded plastic case, the Torch and accessories fit neatly into their own recessed compartments.

Each #4400 Torch Kit Contains: Miniature Torch, 6 Micronox™ Cylinders, 3 Butane Cylinders, 12 Brazing Rods, Tube of Flux, 2 Flame Tips, 1 Butane Tip, Spark Lighter, 2 Extra Gaskets and Complete Operating Instructions.

## #1001 & #1002

A back-up inventory of these color-keyed, two-pack boxes of Micronox™ and Butane gas cylinders will ensure the torch owner a continuous supply of gases in order to fire up his Microflame torch.



## #3100



This accessory kit has everything you need for all types of brazing and soldering projects. Kit contains: 12, 1/32"x6" (.79mm x 152 mm) silver alloy brazing rods, 6, 1/16"x6" (1.59 mm x 152 mm) aluminum brazing rods, containers of silver solder and aluminum flux, brush applicator, sandpaper, a heat resistant working surface and complete instructions.

PFL39C00	MICROFLAME 4400 DLX WELD KIT	41.95	34.95	299
PFL39C01	MICROFLAME 1001 MICRONOX	2.25	2.15	299
PFL39C02	MICROFLAME 1002 BUTANE	2.99	2.85	299
PFL39100	MICROFLAME 3100 BRAZ ROD KIT	7.75	6.95	299



## MIDWEST

# Build it right from the start!

### Use Midwest Micro-Cut Balsa and Hardwoods.

Here is precision and quality you can see and feel! We purchase only the finest woods available and inspect it five times to make sure you get only the very best. Micrometers are commonplace at Midwest to assure precision Micro-Cut quality!

So no matter what you are building - you can build it right from the start with Midwest Micro-Cut Balsa and Hardwood. Get Micro-Cut precision woods today at your favorite hobby or craft supply store! You deserve the best!

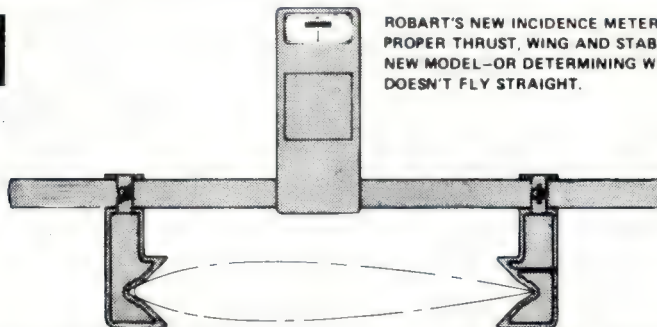


Each description line will state the material (such as balsa, plywood, etc.) followed by the dimensions, and then the number of pieces per bundle.

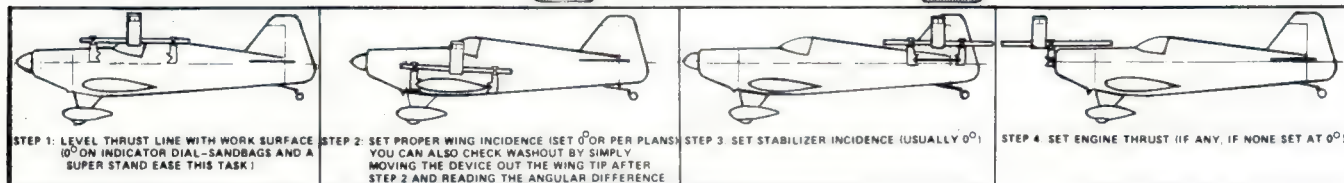
MID38005	BALSA 1/4 X 1/2 X 36	15	9.00	8.10	300
MID38015	BALSA 1/4 X 1/4 X 36	23	9.20	8.30	300
MID38055	BALSA 1/16 X 3 X 36	10	9.00	8.10	300
MID38057	BALSA 3/32 X 3 X 36	10	10.50	9.45	300
MID38060	BALSA 1/8 X 3 X 36	5	6.25	5.65	300
MID38062	BALSA 3/16 X 3 X 36	5	7.50	6.75	300
MID38065	BALSA 1/4 X 3 X 36	5	9.00	8.10	300
MID38075	BALSA 1/16 X 4 X 36	10	14.00	12.60	300
MID38077	BALSA 3/32 X 4 X 36	5	7.50	6.75	300
MID38080	BALSA 1/8 X 4 X 36	5	8.75	7.85	300
MID38082	BALSA 3/16 X 4 X 36	5	10.50	9.45	300
MID38085	BALSA 1/4 X 4 X 36	5	13.25	11.95	300
MID38110	SPRUCE 3/16 X 1/2 X 36	16	8.00	7.20	300
MID38115	SPRUCE 1/4 X 1/4 X 36	20	8.00	7.20	300
MID38120	SPRUCE 1/4 X 1/2 X 36	14	8.40	7.55	300
MID38210	TRIANGULAR STICK 1/2 X 36	10	6.50	5.85	300
MID38220	TRAILING EDGE 1 X 36	10	7.00	6.30	300
MID38225	TRAILING EDGE 1-1/2 X 36	10	8.00	7.20	300
MID38235	MAPLE 3/8 X 3/8 X 18	6	4.80	4.30	300
MID38240	MAPLE 3/8 X 1/2 X 18	6	5.10	4.60	300
MID38245	MAPLE 3/8 X 3/4 X 18	6	5.40	4.85	300
MID38310	PLYWOOD 1/32 X 6 X 12	6	5.40	4.85	300
MID38315	PLYWOOD 1/16 X 6 X 12	6	5.70	5.15	300
MID38320	PLYWOOD 1/8 X 6 X 12	3	4.20	3.90	300
MID38325	PLYWOOD 1/4 X 6 X 12	3	4.20	3.90	300

## ROBART

### NEW Model Incidence Meter



ROBART'S NEW INCIDENCE METER---A MUST FOR SETTING PROPER THRUST, WING AND STABILIZER INCIDENCE ON A NEW MODEL--OR DETERMINING WHY YOUR PRESENT MODEL DOESN'T FLY STRAIGHT.



R0839C00 ROBART INCIDENCE METER

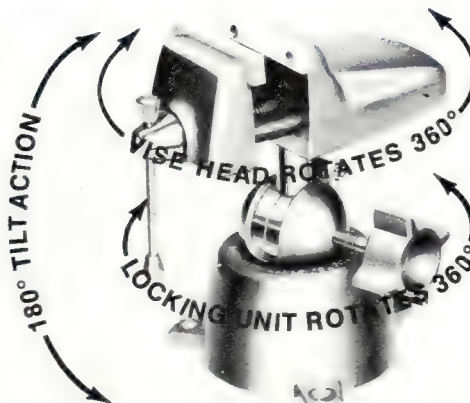
19.95 15.95 300

## PANAVISE

### PANAVISE

It's like no other tool you've ever used. Its head rotates a full 360 degrees--and tilts 180 degrees from vertical to horizontal. Imagine how that kind of versatility simplifies work procedures, just one convenient knob locks work in any desired position, firmly yet gently.

Over the years this unique concept has grown into a system employed worldwide by scientific and industrial companies. Today PANAVISE offers a variety of interchangeable work holding heads, bases and accessories for every imaginable function. But, just because it's small, doesn't mean you can't use PANAVISE for some pretty rugged work. It's a vise every craftsman deserves.



## BETTER THAN A THIRD HAND!

**Model 301** (left) illustrates four functional design features that make PANAVISE® work holder tool systems the most versatile in the world. (1) The stem of the vertical vise head turns full-circle within the 5/8" (1.59 cm) throat of the "locking unit" in the base. (2) This locking unit also permits the vise head to be tilted 90° in any direction (180° tilt action). (3) The housing containing the "locking unit" also rotates full-circle. (4) All these movements are controlled by one variable-pressure knob, making it possible to move the work at any desired drag-tension, or to lock it firmly, at any position, any angle, facing any direction around the base.

PAN39301 PANAVISE MODEL 301 VISE

27.98 23.95 300



## STAY-BRITE

Stay-Brite solders most metals including:

stainless steel

monel	nickel
chrome	coated steels
brass	bronze
copper	black steel
galvanized	silver
steel	platinum
gold	cast iron

For best results use with Stay-Clean Soldering Flux



Stay-Brite silver solder Five times stronger than ordinary solder.

High strength silver bearing solder melts and flows at 430°F. Provides strength without distortion caused by high temperature brazing.

Flows free and smooth, solders all metals.

Silver provides better electrical conductivity.

Tensile strength 10,000 to 25,000 P.S.I. Elongation: 48%. Vibration resistant.

Vibration resistant, will not crack in service.

Elongation of 48% Stay-Brite stretches under high pressure, won't break under constant pressure.

Stay-Brite conforms to Food Administration requirements for use in food processing, accepted by the National Sanitation Foundation. Retains its bright finish, similar to stainless steel.

SSS90C00 STA-BRITE SILVER SOLDER

9.20 1.95 301

## TOWER HOBBIES

### PRECISION INSTRUMENTS

5-blade tube



#11 blade



The Tower Hobbies Precision Instrument Line is absolutely the finest quality. The Precision Line comes in the extremely useful No. 11 size. The No. 11 blade is .020" thick and is made of the finest carbon steel available. It is heat treated for unbelievable hardness and is formed, honed and ground with precision equipment to obtain the sharpest edge possible. To compliment this precision blade, we have an all aluminum blade handle that is knurled at the base for positive grip.

PRECISION HOBBY BLADE HANDLE #TOW37001  
PRECISION #11 BALDES (5 per tube) #TOW37011

TOW37001 TOWER PRECISION BLADE HANDLE#1  
TOW37011 TOWER PRECISION #11 BLADES 5

1.10 .75 301  
.95 .75 301

## TAPS K&S

### INTERCHANGEABLE TIPS

Includes numbers 0-80, 1-72, 2-56, 3-48, 4-40 with Tite-Grip collet handle.

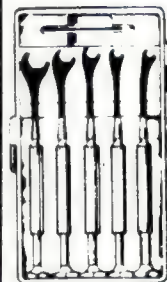
Stock no. 421



### OPEN-END WRENCH SET

For 1 8, 5 32, 3 16, 1 4, 5 16 hex or square.

Stock no. 423



### HEX NUT DRIVER SET

For 5 64, 3 32, 7 64, 1 8, 5 32 hex.

Stock no. 422



### SCREWDRIVER SET

1 32, 3 64, 1 16, 3 32, 1 8 & 5 32 blade widths.

Stock no. 426



Model M1200

Instant Heat - 110 volt-100 watt - Two Tips included.

### SOLDERING GUN



KES34421	KES 421 TAP SET	10.95	9.60	301
KES34422	KES 422 HEX NUT DRIVER SET	6.95	6.25	301
KES34423	KES 423 OPEN-END WRENCH SET	6.95	6.25	301
KES34426	KES 426 SCREWDRIVER SET	6.95	6.25	301
KES94200	KES #1200 SOLDERING GUN	15.95	13.95	301

## Cutting Wire

NI CHROME WIRE FOR FOAM CUTTING. THE SAME HIGH RESISTANCE WIRE WE USE FOR PRODUCTION. GIVES EXTREMELY SMOOTH CUT - LONG LASTING. #26 GAUGE - 25 FT. SPOOL

## WING MFG.



WIN20229 WING NI-CHROME WIRE #229 25 FT

4.95 4.50 301



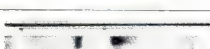
## X-ACTO



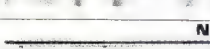
**No. 234 RAZOR SAW BLADE**  
3/4" wide, cutting edge 4 1/2" long, 42 teeth per inch.



**No. 235 RAZOR SAW BLADE**  
1" wide, cutting edge 4 1/2" long, 42 teeth per inch. Carded.



**No. 236 RAZOR SAW BLADE**  
1 1/4" Razor Saw Blade for hobby and industrial use. Cutting Edge 5 1/2" long.



**No. 239 RAZOR SAW BLADE**  
1 1/4" wide, 70 teeth per inch for extra fine precision. Cutting edge 5 1/2" long.

**No. 7533 MITRE BOX**



Extruded aluminum, 6" long, 3/4" x 1 1/4" capacity with two 45° and one 90° slots machined for precision accuracy. Grooves on base of mitre box to hold wood, etc., in sizes: 1/16", 3/32", 1/8", 5/32", 3/16", and 1/4". For use with No. 236 and 239 Saw Blades only. Carded No. 7533



**No. 7535 RAZOR SAW SET**  
For delicate sewing work and cutting in confined spaces. Contains No. 239 Razor Saw Blade and No. 5 Handle. Can also be used with No. 7533 Mitre Box.



**No. 7530 RAZOR SAW SET**  
No. 5 Handle and one each of No. 234 and No. 235 saw blades. These are basic tools for the cutting of circuit boards, construction of models and mock-ups, shaping balsa, working fiberglass, cutting plastic, narrow-gauge tubing, and metals.



**No. 7532 MITRE BOX SET**  
Make hairline cuts without chipping, splitting or leaving burned surfaces. Contains aluminum mitre box, No. 236 Razor Saw Blade and No. 5 Handle.



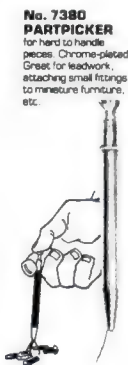
**No. 7531 RAZOR SAW AND KNIFE SET**  
An ideal unit for every hobbyist. Platform and cover serve as storage tray. Set contains No. 5 handle and one each of No. 236, No. 235, No. 234 saw blades, No. 15 keyhole saw blade, and 5 knife blades.



**No. 7040 BLOCK PLANNER**  
For delicate work and heavy planing — fits hand (3 1/2" long). Single-bevel surgical steel blade, steel bottom plate, plastic body. Carded. Refill Blades: No. 109 — pkg. of 2.



**No. 7070 SCREW DRIVER SET**  
Aluminum handle and chuck, 5 different sizes of steel screw driver blades, notched shank for greater torque. .040, .055, .070, .080, .100.

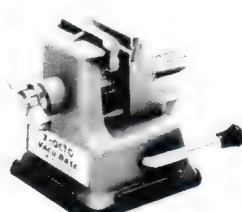


**No. 7380 PARTPICKER**  
For hard to handle pieces. Chrome-plated. Great for leadwork, attaching small fittings to miniature furniture, etc.



**No. 7045 SPOKESHAVE**  
For fine shaving, rounding, shaping. Solid one-piece metal handle (3 5/8" long), single-bevel surgical steel blade (7/8" wide). Carded. Refill Blades: No. 30 — pkg. of 2.

**No. 7048 BALSA STRIPPER**  
Precision cutter (3 1/4" long), cuts sheets 1/32" to 3/16" thick, strips 1/16" to 1/2" wide — scale controls strip width. Carded without No. 6 knife.



**No. 7370 MINI VACU-VISE**  
No screws. Just flip lever! Holds tight instantly on non-porous surfaces — Formica, glass, metal, etc. Ideal for hobbyist, do-it-yourselfer, craftsman, sportsman. Each unit individually shrink-wrapped on a colorful card.



**No. 7050 HAMMER SET**  
7" all-metal handle complete with 6 different interchangeable heads — 2 steel balls, 1 flat steel, 1 flat brass, 1 flat plastic, 1 brinner's steel.



**No. 7448 'C' CLAMP SET**  
Four different 'C' Clamps of light weight, high-strength magnesium with steel screws, aluminum lock plates. Carded.

L — 1 5/8" wide 1" deep  
M — 1 1/4" wide 1 1/8" deep  
N — 1" wide 1" deep  
O — 1 1/2" wide 1 3/4" deep



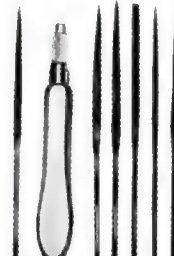
**No. 7378 SOLDERING IRON AND HOT KNIFE**  
25 watts soldering iron — Top quality. Does the work of irons with higher wattage. Hold and use as a pencil. Replaceable tip. Narrow diameter tip gets into tight places. Develops up to 720°F. Handle remains cool. Pre-heated, nickel plated tip means longer tip life. Includes convenient wire stand.  
**Hot knife** — Model Building — cuts through plastics rapidly and accurately.  
General use: rework connectors, clear product surfaces that have epoxy or flesh, remove coated circuit board components. The No. 7378 X-ACTO Soldering Iron and Hot Knife comes mounted on a colorful card — complete with instructions. UL approved.



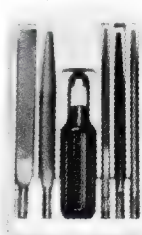
**No. 51-ST** No. 1 knife with 8 extra assorted blades (No. 1 Assort.) No. 5011



**No. 5062 DOUBLE KNIFE SET**  
Nos. 1 & 2 knives with 10 assorted blades, on plastic base with removable Vix-Dome cover. No. 5062



**No. 7361 NEEDLE FILE SET**  
A full assortment of six different file styles suited to a wide variety of reassignments, plus a universal quick-change, four-grip handle.



**No. 7163 FILE SET**  
Heavy duty. Handle plus assortment of files for heavy duty work, in handy storage tray on attractive full color hang-up card.



**No. 7509**  
Long-Nose — 4 1/4"



**No. 7504**  
Long-Nose, side cutting — 4 1/4"



**No. 7505**  
Diagonal Cutting — 4"



**No. 7044 COPING SAW**  
Steel frame, wood handle. Adjustable blade grips hold blade taut. Length overall 11". Complete with 1 standard and 1 spiral safety coping saw easy-to-change blades.  
Refill blades:  
**No. 734** Coping Saw Blade — pkg. of 5  
**No. 735** Spiral Saw Blade — pkg. of 3.



**No. 7047 HAND DRILL**  
Hard steel chuck jaws, plastic handle (8" long). Takes Drill Bits No. 80 (smallest) to 3/16" Carded.

**No. 7376 CORDLESS POWER DRILL**  
A battery operated hobby drill "geared" to deliver the power needed for drilling metals and plastics used in model building. The X-acto Cordless Power Drill operates on two standard "C" flashlight batteries. For longer battery life, use alkaline heavy duty batteries. Set complete (less batteries) in fitted plastic tray with three precision collets, drill bit, center punch, grinder.  
**Drills plastic, wood, light metal. Grinds, Drills, Polishes, Cures, Deburs.**  
**FEATURES:**  
• GREATER TORQUE — means more power.  
• GREATER VERSATILITY — three precision collets hold drill bits or tool accessories up to .093.  
• GREATER VISIBILITY OF WORK AREA — due to off center construction.



**No. 7042 SANDER**  
Wood block sander (2" x 5") including pad for round edges. Carded.



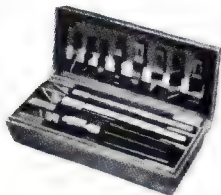
**No. 7351 CONTOURED SANDERS**  
The unique and useful kit offers five different sanding heads, 3 grip-tight handles, scientifically designed to get into those areas other sanders can't reach. Ideal for work with miniature furniture. Including an assortment of pre-cut sheets of plastic-backed sandpaper, the Contour Sanding Kit works equally well on metal, fiberglass, plastic or wood surfaces. Fitted thermoformed plastic tray on attractive full color hang-up card.

**No. 7041 SANDER**  
Wood block sander (1" x 5") including pad for round edges. Carded.





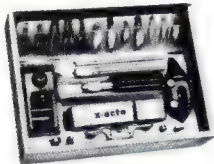
## X-ACTO



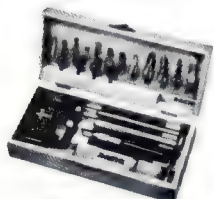
**No. 5082 KNIFE CHEST**  
Nos. 1, 2 and 5 knives plus 10 asstd. extra blades. Handy, fitted chest. Carded—No. 5082



**No. 5083 KNIFE CHEST**  
Nos. 1, 2 and 5 knives plus 14 asstd. extra blades. In a beautiful wooden chest. Order No. 5083



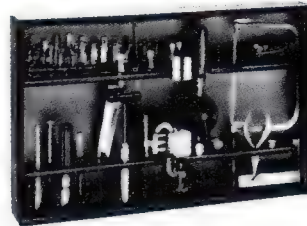
**No. 5284 KNIFE AND TOOL SET**  
Contains Nos. 1, 2, 5 knives and an entire asst. of blades, gouges, routers, Hss X-ACTO planer, sander, spokeshave, balsa stripper. Complete with see-thru cover and fitted plastic tray insert (2nd hole and shows every tool. Available Carded, No. 5284



**No. 5086 KNIFE AND TOOL CHEST**  
Contains Nos. 1, 2, 5 knives and complete asst. of blades, gouges, routers, Hss X-ACTO planer, sander, spokeshave, balsa stripper. In handsome fitted wood chest. Order No. 5086



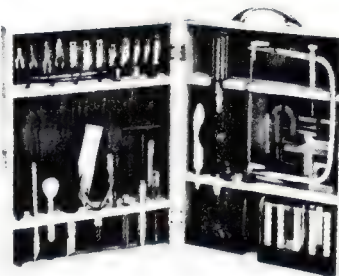
**No. 5087 KNIFE AND TOOL CHEST**  
Contains No. 1, 2 and 5 knives, complete asst. of blades, gouges and routers; plus X-ACTO planer, sander, hobbycraft saw, spokeshave, balsa stripper, pin vise, screwdriver, asstd. drill bits. In large fitted wood chest. Order No. 5087



**No. 5088 COMPLETE HOBBY DEN TOOL CABINET**  
Modern, functional package shows off the X-Acto full assortment of hobby tools, knives and blades. Comes in a sturdy fitted cabinet with sliding see-thru cover. (Size 13 1/4 x 21 1/4 x 3 1/4")

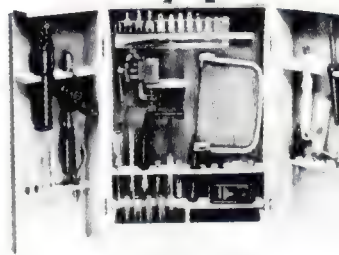
**CONTENTS:** 8 Extra Blades, 4 Assorted Gouges, 4 Assorted Routers, 8 Knives (with blades), 1 Planer, 1 Hobbycraft Saw, 2 Screwdrivers, 2 "C" Clamps, 1 Tweezer, 1 Pair Pliers, 1 Bench Vise, 1 Hand Drill, 1 File, 1 Hammer (with extra handle), 1 Bench Vise, 1 Razor Saw Blade, 1 Chuck, 1 Sander.  
Order No. 5088 (old no. 88N)

Plus FREE copy of "THE X-ACTO WORKSHOP" a Guide Book to X-Acto Knives and Tools with Selected Projects.



**No. 5089 DELUXE HOBBY TOOL AND KNIFE CHEST**  
Extra sturdy all wood carrying case contains: 4 Routers, 4 Gouges, 8 Extra Refill Blades, 1 Razor Saw Blade, No. 7044 Coping Saw, No. 7040 Box Planer, 1 Tweezer, No. 1 Knife, No. 5 Knife, 1 Pair Pliers, No. 7050 Hammer Set, No. 7047 Hand Drill, No. 7351 Contoured Sander Set, No. 7360 File handle, with 2 needle files, 1 Bench Vise, 2 "C" Clamps, No. 7349 Heat Sink, 1 Plastic Handle Screwdriver, 1 Jeweler's Screwdriver, with 1 bit, 1 Pin Vise, 2 Drill Bits, 1 Chuck Adapter.  
Order No. 5089 (old no. 89)  
(Size 14 1/4 x 13 1/4 inches—weight: 8 pounds)

Plus FREE copy of "THE X-ACTO WORKSHOP" a Guide Book to X-Acto Knives and Tools with Selected Projects.

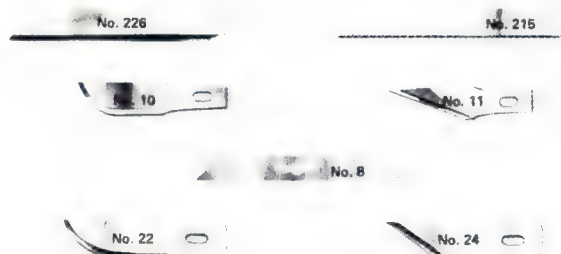


**No. 5089 SUPER-SET TOOL CABINET**  
The ultimate in tool chests — containing a complete assortment of hobby tools, knives and blades fitted into a handsome wood cabinet (with drawer for storage of small parts). A compact orderly way of housing all your hobby tools. Cabinet measures 13" wide x 19" high x 5 1/4" deep. Weight: 13 1/2 pounds.

**CONTENTS:** 1 No. 1 Knife, 8 Extra refill blades, 1 No. 5 Knife, 4 Routers, 1 Punch, 1 Razor Saw Blade, 1 No. 7351 Contoured Sander Set, 1 Jeweler's Screwdriver with 1 bit, 1 No. 7376 Cordless Power Drill — center punch, grinder, and 1 drill bit, 1 No. 7047 Hand Drill, 1 No. 7378 Soldering Iron/Hot Knife, 1 No. 7044 Saw, 1 Tweezer, 1 Pair Pliers, 1 No. 7059 Bench Vise, 1 No. 7050 Hammer Set, 1 No. 7349 Tweezer/Heat Sink, 1 File Handle, with 1 needle file, 1 No. 7040 Planer, 1 Large Screwdriver (with plastic handle).

Plus FREE copy of "THE X-ACTO WORKSHOP" a Guide Book to X-Acto Knives and Tools with Selected Projects.

	<b>No. 1 KNIFE</b> For light to medium work. Aluminum handle 5" long, complete with No. 11 blade. In Tube No. 3201
	<b>No. 2 KNIFE</b> For medium to heavy work. Aluminum handle 5" long, complete with No. 22 blade. In Tube No. 3202
	<b>No. 6 KNIFE</b> For heavy work. Solid aluminum hexagonal handle (4 1/4" long) complete with No. 24 blade. In Tube No. 3206



**NOTE: CONTENTS OF ALL X-ACTO KITS AND TOOLS ARE SUBJECT TO CHANGE OR DELETION WITHOUT NOTICE.**

XAC37145	X-ACTO	734 COPING SAW BLADE 5	1.69	1.60	302	XAC36533	X-ACTO	7533 MITRE BOX-ONLY	3.29	3.00	302
XAC37361	X-ACTO	7361 NEEDLE FILE SET	7.99	7.20	302	XAC37001	X-ACTO	3201 KNIFE #1	.99	.95	303
XAC37370	X-ACTO	7370 MINI VACU-VISE	4.99	4.60	302	XAC37002	X-ACTO	3202 KNIFE #2	1.60	1.60	303
XAC37376	X-ACTO	7376 GORGLESS DRILL SET	9.49	8.55	302	XAC37006	X-ACTO	3206 KNIFE #6	2.89	2.75	303
XAC37378	X-ACTO	7378 SOLDERING IRON W/K	9.99	8.95	302	XAC37008	X-ACTO	8 BLADE 5	.89	.85	303
XAC37380	X-ACTO	7380 PART PICKER	2.99	2.85	302	XAC37010	X-ACTO	10 BLADE 5	1.29	1.25	303
XAC37504	X-ACTO	7504 PLIERS-SIDE CUT	4.99	4.50	302	XAC37011	X-ACTO	11 BLADE 5	.79	.75	303
XAC37505	X-ACTO	7505 PLIERS-CIAG CUT	4.99	4.50	302	XAC37015	X-ACTO	215 BLADE 3	2.29	2.20	303
XAC37509	X-ACTO	7509 PLIERS-LONG NOSE	4.99	4.50	302	XAC37022	X-ACTO	22 BLADE 5	1.29	1.15	303
XAC37655	X-ACTO	7535 RAZOR SAW SET	3.69	3.30	302	XAC37024	X-ACTO	24 BLADE 5	.89	.85	303
XAC37663	X-ACTO	7163 Hvy DUTY FILE SET	8.59	7.75	302	XAC37026	X-ACTO	226 BLADE 3	1.99	1.90	303
XAC36051	X-ACTO	5011 KNIFE SET	1.89	1.80	302	XAC37034	X-ACTO	234 SAW BLADE 3/4 DEEP	1.39	1.25	302
XAC36053	X-ACTO	7530 RAZOR SAW SET	4.29	3.95	302	XAC37035	X-ACTO	235 SAW BLADE 1 IN DEEP	1.39	1.25	302
XAC36062	X-ACTO	5062 DOUBLE KNIFE SET	4.39	3.95	302	XAC37040	X-ACTO	7040 BLOCK PLANNER	2.69	2.55	302
XAC36070	X-ACTO	7070 SCREWDRIVER SET	3.79	3.40	302	XAC37041	X-ACTO	7041 1 IN. SANDER	1.49	1.40	302
XAC36082	X-ACTO	5082 KNIFE CHEST	7.99	7.20	303	XAC37042	X-ACTO	7042 2 IN. SANDER	1.59	1.50	302
XAC36083	X-ACTO	5083 DELUXE KNIFE CHEST	9.29	8.35	303	XAC37044	X-ACTO	7044 COPING SAW	4.99	4.60	302
XAC36084	X-ACTO	5284 KNIFE & TOOL SET	18.95	15.95	303	XAC37045	X-ACTO	7045 SPOKESHAVE	1.79	1.70	302
XAC36086	X-ACTO	5086 KNIFE & TOOL CHEST	22.95	18.95	303	XAC37046	X-ACTO	7446 "C" CLAMP SET	6.99	6.30	302
XAC36087	X-ACTO	5087 KNIFE & TOOL CHEST	34.95	25.95	303	XAC37047	X-ACTO	7047 HAND DRILL	6.99	6.30	302
XAC36088	X-ACTO	5088 COMPLETE K&T CABINT	59.95	44.95	303	XAC37048	X-ACTO	7048 BALSA STRIPPER	2.69	2.55	302
XAC36089	X-ACTO	5089 CLX K&T CABINET	74.95	55.95	303	XAC37050	X-ACTO	7050 HAMMER SET	5.99	5.40	302
XAC36099	X-ACTO	5099 SUPER TOOL CABINET	99.00	66.95	303	XAC37135	X-ACTO	236 SAW BLADE 1-1/4 IN.	1.79	1.60	302
XAC36351	X-ACTO	7351 CONTOURED SANDERS	5.99	5.50	302	XAC37139	X-ACTO	239 SAW BLADE, X-FINE	1.99	1.90	302
XAC36531	X-ACTO	7531 RAZOR SAW & KNIFE	7.79	7.00	302	XAC37144	X-ACTO	735 SPIRAL SAW BLADE 3	1.19	1.15	302
XAC36532	X-ACTO	7532 MITRE BOX SET	6.49	5.85	302						



# COVERING MATERIALS & COVERING AIDS

## Covering Materials and Aids

Because we've added whole sections about how to use the covering materials we sell, I won't tell you the same things here. Instead, I'll just talk about them in general.

Monokote is probably the oldest of the covering products on the market, short of silk and tissue. It came out as a covering with a sticky back that you laid in place and then sealed to the surface with the iron. Its shrinking characteristics were very like those of the present-day stuff. The modern Monokote is a much improved product... it has a dry adhesive that is activated only by the application of heat. This allows you to position it exactly where you want it before you tack it into place. Its true name is "Top Flite Super Monokote," but if you just ask for "Monokote," you'll get the same material. The original stuff is no longer available, as the modern covering is quite superior to it.

Solarfilm is similar to Monokote, but it is lighter and uses a lower heat for application. It isn't quite as strong as Monokote, however. That's of little consequence for most planes, so you can choose it without worrying about your model. The color choices are a little different from those of Monokote, so you can pick out what you'd like.

Econokote is similar to Solarfilm in that it requires less heat and is more flexible than Monokote. It is made by Top Flite and Econokote colors match Monokote colors exactly.

A fourth heat-applied material is totally different from the "kotes," or films. This material is Coverite. It is offered in three basic varieties: Silkspun, Super, and Permaglos. The silkspun variety is made of a synthetic non-woven fabric. It is very strong and contains a built-in finish. Super Coverite is a woven synthetic fabric and combines high strength and scale appearance. It is just great for those planes that require a

scale-looking fabric job. This material is just about the strongest material you can get to cover your plane. Permaglos Coverite is Silkspun Coverite with a permanent gloss finish applied to it during manufacture. It provides you with a high gloss finish with a minimum of labor. This comes in a variety of colors, and if you really want to knock your buddies' eyes out, use the Dayglo colors on your next plane. I guarantee you'll have a hard time losing this one in the sky.

If you are a Traditionalist, we do carry silk. Some of the finest silk available anywhere is Aerosilk, 100% pure silk by K&S. It's available in colors so you can apply just a few coats of clear to get a nice finish. For paints, look at the paint section... we carry a complete selection of the traditional dope, as well as a lot of more modern paints.

For application of the heat-shrink and heat-activated coverings, we carry a good selection of irons and heat guns. Check out this section, too.

## DAVE BROWN

**SKYLOFT** is a revolutionary covering material designed to replace silk and silk-span. It is a continuous filament spun bonded nylon that has extreme strength, ultra light weight, is easy to use, and has tremendous "fillability" (completely filled with 3 coats of dope). Each package contains 3 square yards and complete instructions.

DBP43C01 DAVE BROWN SKYLOFT 3 SQ. YD.

3.25 2.95 304

## K&S

### AEROSILK

This is heavy duty 100% pure  
It is made of the finest silk available anywhere.



K&S44600	K&S 600 AERC SILK 1 YD. WHITE	6.95	6.25	304
K&S44604	K&S 604 AERC SILK 1 YD. YELLOW	7.95	7.15	304
K&S44605	K&S 605 AERC SILK 1 YD. RED	7.95	7.15	304

## SEALECTOR

### HEAT SEALING IRON

USED FOR THE APPLICATION  
OF MONOKOTE, SOLARFILM,  
ECONOKOTE AND OTHER HEAT  
SHRINK COVERINGS.



CUSTOM MODEL  
#SEA45202

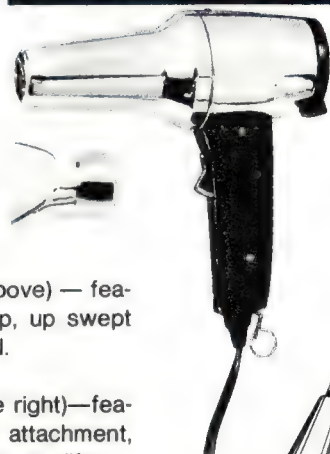
The Sealector Custom Iron features a pointed tip, edge radius, and durable teflon coating. It has a heavy duty 165 Watt heating element that gives accurate heat control due to an adjustable thermostat knob. Heat range is 300 to 500 degrees F. Comes with handy stand.

SEA45202 SEALECTOR CUSTOM MODEL IRON 28.35 21.95 304

## TOP FLITE

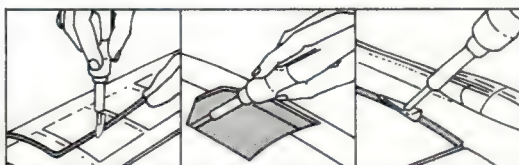


**SEALING IRON #TOP45200** (above) — features teflon coating, pointed tip, up swept front, thermostatically controlled.



**HEAT GUN #TOP45301** (above right)—features 3 position switch, nozzle attachment, 2 speed heat control, and long motor life.

**TRIM SEAL TOOL No. TOP45100** (right) features high and low heat settings.



Step 1 Pin Striping      Step 2 In Tight Spots      Step 3 Fillets

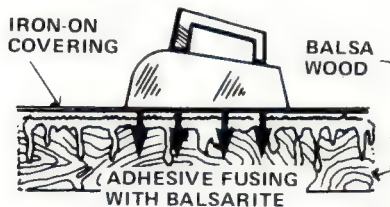
TCP45100	TCP FLITE TRIM SEAL TOOL	15.95	12.75	304
TCP45200	TCP FLITE SEALING IRON	21.95	17.95	304
TCP45301	TCP FLITE HEAT GUN	32.95	24.95	304
TCP45302	TCP FLITE IRON REPLACEMENT SHOE	5.95	5.35	304



## COVERITE

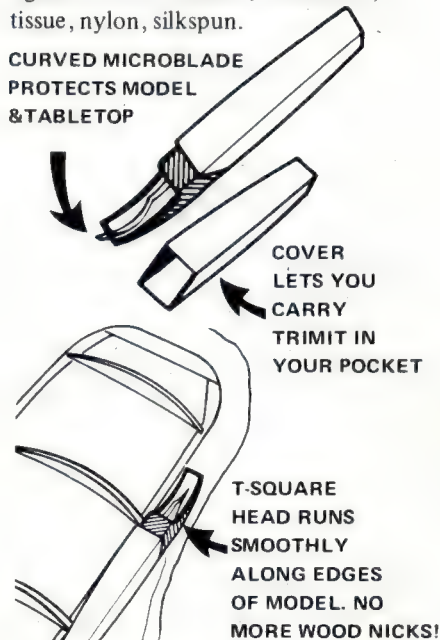
### Step No. 1. Here's how Balsarite eliminates bubbles and sags.

Iron-on coverings tend to stick only to the surface of balsa, often leaving trapped air, then sagging and coming unglued. Balsarite sinks deep into the wood, then melts and intermixes with the adhesive of the covering as it is ironed on. No trapped air, only deep permanent adhesion. Eliminates sagging, fuelcreep, warping due to moisture, and makes hard-to-reach fillets easy to cover. If you use Monokote, Solarfilm and Coverite, you must use Balsarite. It takes the gamble out of covering with iron-ons.



### Step No. 2. New tool called TRIMIT ends wood gouges. The Trimit is designed to cut Coverite, Monokote, tissue, nylon, silkspun.

CURVED MICROBLADE PROTECTS MODEL & TABLETOP



### Step No. 3. There's a Coverite for every type of model.

**Silkspun**  
Coverite looks like tissue, but is 10x stronger. It can be used as is (filler coat is built-in) or painted, requiring 1/3rd the paint. It's the most economical of all iron-ons. Super Coverite looks like silk, weighs the same when both are painted, but is 100x stronger. Like Silkspun it can be used as is, or painted. Being a woven fabric, it's very authentic. Permagloss Coverite looks like painted silk. It actually has 4 coats of special Permagloss paint on it, which is fuelproof, rotproof, fadeproof. It's 150x stronger than any other covering. Available in trim sheets, too. Camouflage Coverite looks like WWI German lozenge pattern. Made out of Super Coverite with Camouflage pattern silkscreened in 4 colors, just as it was done in the war. 1 1/2" or 2" scale.

**Dayglow is snazzy.** Now Permagloss comes in Dayglow colors: fiery orange and screaming yellow. You can see them clearly even against gray skies. And they look fantastic! Cover an entire plane or just trim.

## Study these facts about iron-ons. Then make your own conclusions.

**Middle age sag.** Sometimes it doesn't even take that long for plastic film coverings to sag. Sorry, but it's the nature of the beast. Only one iron-on remains drum tight, month after month, in all kinds of weather. Only Coverite's 100% polyester fibres have the ability to shrink and stay shrunk permanently. Without warpage. Coverite stops shrinking when it meets 1/2 gram of resistance.

**Who needs turbulation!** Everyone needs turbulation, even a pylon racer. Aerodynamically the fabric texture of Coverite has superior handling characteristics. Unlike

plastic films which are overly smooth, Coverite's texture allows for greater turbulation, hence better maneuverability. Gliders, for example, ride the thermals better with Coverite. That's about as pure a test as any. But don't take our word for it. Ask the guys who continually win NATS & INTERNATS why they use Coverite. Guys like Roth, Platt, Titus, Moucha, Weiss, Ellis, Peterson, Vandever, etc., etc., etc.

**Ever have a crash? Why not buy an insurance policy?** Crashes are inevitable (bite our tongues). But if

the model was Coverited, chances are better than 50-50 the plane would survive; and with minor repairs, live to fly again. Not so with plastic films. They usually shatter. In many pieces. What's more, even normal landings cause plastic film to scratch, scuff, tear and puncture. That's a bitter pill to swallow after spending all those hours building and finishing a fine model. It's also unnecessary.

CCV41201	CCOVERITE SUPER 38X47 WHITE	8.20	6.75	305	CCV45C00	COVERITE TRIM-IT KNIFE	1.35	1.25	288
CCV41202	CCOVERITE SUPER 38X47 RED	8.20	6.75	305	CCV41351	38X25 FT COVERITE SILKSPUN WHITE	45.51	33.95	305
CCV41203	CCOVERITE SUPER 38X47 BLUE	8.20	6.75	305	CCV41501	COVERITE PERMAGLOSS 38X43 WHITE	10.70	8.95	305
CCV41204	CCOVERITE SUPER 38X47 ORANGE	8.20	6.75	305	CCV41502	COVERITE PERMAGLOSS 38X43 RED	10.70	8.95	305
CCV41205	CCOVERITE SUPER 38X47 YELLOW	8.20	6.75	305	CCV41503	COVERITE PERMAGLOSS 38X43 BLUE	10.70	8.95	305
CCV41206	CCOVERITE SUPER 38X47 ANTIQUE	8.20	6.75	305	CCV41504	COVERITE PERMAGLOSS 38X43 ORANGE	10.70	8.95	305
CCV41207	CCOVERITE SUPER 38X47 HIZV RED	8.20	6.75	305	CCV41505	COVERITE PERMAGLOSS 38X43 YELLOW	10.70	8.95	305
CCV41251	47X15 FT COVERITE SUPER WHITE	38.84	28.95	305	CCV41506	COVERITE PERMAGLOSS 38X43 D.C.	10.70	8.95	305
CCV41252	47X15 FT COVERITE SUPER RED	38.84	28.95	305	CCV41507	COVERITE PERMAGLOSS 38X43 ALUM.	11.65	9.90	305
CCV41253	47X15 FT COVERITE SUPER BLUE	38.84	28.95	305	CCV41508	COVERITE PERMAGLOSS 38X43 BLACK	10.70	8.95	305
CCV41254	47X15 FT COVERITE SUPER ORANGE	38.84	28.95	305	CCV41551	43X15 FT COVERITE PERM. WHITE	50.68	37.95	305
CCV41255	47X15 FT COVERITE SUPER YELLOW	38.84	28.95	305	CCV41552	43X15 FT COVERITE PERM. RED	50.68	37.95	305
CCV41256	47X15 FT COVERITE SUPER ANTIQUE	38.84	28.95	305	CCV41553	43X15 FT COVERITE PERM. BLUE	50.68	37.95	305
CCV41257	47X15 FT COV. SUPER HI-VIZ RED	38.84	28.95	305	CCV41554	43X15 FT COVERITE PERM. ORANGE	50.68	37.95	305
CCV41301	CCOVERITE SILKSPUN 38X54 WHITE	8.20	6.75	305	CCV41555	43X15 FT COVERITE PERM. YELLOW	50.68	37.95	305
CCV41302	CCOVERITE SILKSPUN 38X54 RED	8.20	6.75	305	CCV41556	43X15 FT COVERITE PERM. D.CRAB	50.68	37.95	305
CCV41303	CCOVERITE SILKSPUN 38X54 BLUE	8.20	6.75	305	CCV41557	43X15 FT COVERITE PERM. ALUM.	55.17	41.35	305
CCV41304	CCOVERITE SILKSPUN 38X54 ORANGE	8.20	6.75	305	CCV41604	COVERITE DAYGLOW ORANGE 38X43	11.65	9.90	305
CCV41305	CCOVERITE SILKSPUN 38X54 YELLOW	8.20	6.75	305	CCV41605	COVERITE DAYGLOW YELLOW 38X43	11.65	9.90	305
					CCV6C000	COVERITE BALSARITE 8 OZ	3.50	2.95	350
					CCV6C016	COVERITE BALSARITE-PINT 16 OZ	6.50	5.50	350



## TOP FLITE MONOKOTE & ECONOKOTE

### **SUPER** MONOKOTE® **&** **NEW!** ECONOKOTE™ TO GIVE YOU A PERFECT COVERING FOR EACH OF YOUR MODELING NEEDS.

**Both** have a fuel proof dry adhesive that will not stick to itself when handling. Both are lightweight and strong, puncture and tear resistant, odorless and moisture proof, stain and fade proof, too. And both come in great ultra high gloss colors.

### **BUT,** **WHAT ARE THE DIFFERENCES?**

#### **SUPER** MONOKOTE®

There's no better film than SUPER MONOKOTE for covering your open wing and frame structures, where extra strength is needed.

SUPER MONOKOTE offers a much wider range and selection of colors, including transparent and flat finishes.

#### **NEW!** ECONOKOTE™

Because of its lower heat application, ECONOKOTE is ideal for use on foam surfaces.

ECONOKOTE is great for use on solid areas and strong open frame structures where extra strength isn't necessary.

ECONOKOTE's new formulation makes it more flexible and pliable for use on compound curves.

ECONOKOTE is perfect as a trim material on *any* surface, *without* solvents.

SEE  
PAGE 283  
IN BOOK  
SECTION  
FOR  
HOW TO  
APPLY  
HEAT  
SHRINK  
COVERING  
MATERIALS.  
BOOK BY  
EDSON.





# COVERING MATERIALS & COVERING AIDS



Revolutionary New!

## Econokote™

### HOW TO COVER WITH Econokote

#### The covering with the built-in finish

Econokote will give you a professional looking finish in a fraction of the normal time, eliminating the usual tedious work of sealing, doping, sanding and polishing.



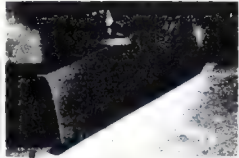
1. To prepare model for covering with Econokote fill cracks and holes and then sand all surfaces with 400 sandpaper, wipe clean. The smoother the undersurface the smoother the finish. Do not dope or seal the wood. The only tools required are: A Small electric travel iron or Top Flite Sealing Iron, B Razor blade, C Fall tapered pen.



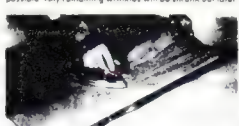
2. Unroll the Econokote on table and lay part to be covered on it. Cut piece of Econokote approximately 2" larger in width and 3" or longer than the part to be covered. When covering wings and stabilizers, cover last, trim first.



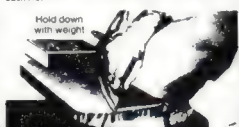
3. Remove Econokote from backing film and lay on part to be covered adhesive side down. If you forget which side has adhesive, touch your point to edge of material. Iron will stick only to the adhesive side. Allow 1" overlap all around except at tip where overlap is 3".



4. Tack material to wing on four corners. Heat bond the Econokote to the trailing edge by starting at the center and working out to one end and then the other, applying only slight pressure. The heat of the iron will cause some of the colors to change. As the area cools it will return to its original color. Repeat this process on the leading edge along the tip and at the root of the wing making sure to bond all outside edges completely around the structure. Try to get the covering as smooth as possible. Any remaining wrinkles will be shrunk out later.



5. To shrink the covering tight, set the iron on the surface of the material and glide it back and forth over entire area. **DO NOT PRESS DOWN.** Just glide it over the surface lightly. The Econokote will then cool and shrink. On an open frame wing, be sure to bond to each rib.



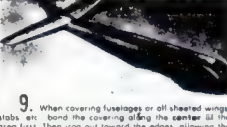
6. To finish up on any compound sections, trace the material to about the shape to be covered leaving about 2" overlap for gripping. Starting at the high point of the compound curve, grab the excess material, apply heat just ahead of the curve and as the material becomes pliable from the heat, stretch the Econokote over the section. Repeat this process until all wrinkles are worked out and the top or curved section is smooth. Work slowly, keeping tension on the material at all times. Let the heat of the iron do the work. Very little pressure is needed.



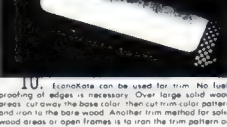
7. Trim off all excess material by cutting close to structure. Sand finish cut edges with iron. Repeat entire covering process for top of wing, allowing second surface to overlap about 1" after trimming.



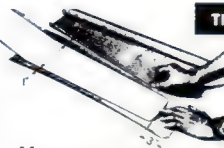
8. Before covering stab and fin, it is best to put a 2-8 fillet strip of Econokote in the corner, half overlapping the fin and half overlapping the stab. For an end pull, heat as you iron in the fillet. Finish covering the fin and stab by repeating the same process as done for wing.



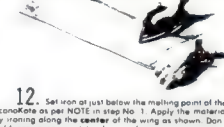
9. When covering fuselage or all sheeted wings, stabs, etc., bond the covering along the center of the area first. Then iron out toward the edges, allowing the air to escape from under the material as you go. Keep tension on material at all times.



10. Econokote can be used for iron. No fuel, proofing of edges is necessary. Over large solid wood areas, cut down the base color, then set iron color pattern and iron to the base wood. Another trim method for solid wood areas or open frames is to iron the trim pattern on top of the base color.



11. To prepare foam surfaces for covering with Econokote, first sand off all flash, mold protrusions, etc. that may show through the material. The smoother the undersurface the better the finished job. Cut material to shape of wing leaving at least 1" extra with on each of the leading and trailing edges and about 2" longer at the tip. Prepare for coverings per steps No. 1 and No. 2.



12. Set iron or just below the melting point of the Econokote as per NOTE in step No. 1. Apply the material by ironing along the center of the wing as shown. Don't hold iron in one spot too long - keep it moving, using only slight pressure.

#### TECHNIQUE FOR COVERING FOAM



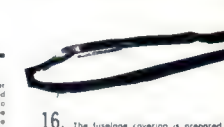
13. New piece of Econokote material as shown on the Econokote toward and over the leading and trailing edges. Finish off tip, see step No. 6.



14. After trimming off the excess material as per step No. 7, go over the trimmed edge with the iron and make sure that all edges are sealed down tight. This is to prevent fuel from getting under the surface of the Econokote. Trim design can be applied directly over the Econokote by cutting out a pattern and ironing it to the surface using masking tape to align the design.



15. Pin stitching can be applied in the same manner as trim design. Use slightly lower temperature. No fuel proofing at the edges is necessary.

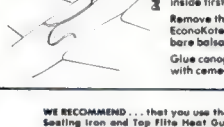


16. The fuselage covering is prepared in the same manner as per step No. 11. Cut on oversized pattern of the side to be covered as shown. Do one side at a time.

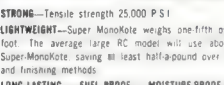
#### HOW TO ATTACH CANOPIES OVER WOOD STRUCTURES



1. Cover fuselage - bond Econokote well. Tape canopy in position. Cut around canopy.



2. REMOVE CANOPY. Make another cut 1/16" - 1/8" inside first cut. Remove thin strip of Econokote exposing bare below. Glue canopy in place with cement or epoxy.



3. WE RECOMMEND... that you use the Top Flite Sealing Iron and Top Flite Heat Gun for best results... for that really professional look!

#### FACTS ABOUT Monokote

**STRONG**—Tensile strength 25,000 P.S.I.  
**LIGHTWEIGHT**—Super Monokote weighs one-fifth ounce per square foot. The average large RC model will use about 4 ounces of Super Monokote, saving at least half-a-pound over regular covering and finishing methods.  
**LONG LASTING**—FUEL PROOF—MOISTURE-PROOF—STAIN PROOF  
**PUNCTURE RESISTANT**—Many times the tear strength of silk and dope coverings.  
**ODORLESS**—No irritating smells, no dangerous fumes.  
**WILL NOT INDUCE WARPING**—even on lightweight structures.

#### HINTS ABOUT AND CARE OF Econokote

1. When covering a model with Econokote, it is best to first assemble all of the major elements of the model without permanently attaching same, then disassemble and cover each part or element individually. When this is done, put the model back together and glue all parts permanently in place. Make sure there is no Econokote covering areas where wood has to be glued to wood.  
2. Econokote covered models can be cleaned with detergent (dishwashing liquid, etc.).  
3. Dents in Econokote as a result of any accident can be eliminated by simply applying heat over the affected area.  
4. A puncture can be repaired in the field simply by covering the area with a patch of Trim Monokote. Later at home, remove field patch and replace with a lean patch of ironed-on Econokote.  
5. For best results and to avoid any possible scratching of the Econokote surface, keep the iron clean and smooth at all times. Use fine rubbing compound on cold iron to remove scratches before use.  
6. Should air become trapped under the surface while shrinking Econokote, just puncture the material with a small pin to allow the air to escape.  
7. When covering undercambered wings, seal outline first, seal to concave ribs next, following iron patch with your finger or a dampened ball of Kleenex. Finally, shrink covering tight.  
8. Fillets, such as between fuselage and fin, should be covered first using a strip of material and keeping tension at all times. See Fig. 8B.

#### FACTS ABOUT Monokote

**LIGHT WEIGHT**—Intended primarily for covering foam surfaces and over strong structures. Not recommended for glider wings, free light or light weight structures where high flexing or twisting occurs. Econokote weighs 1/5th ounce per square foot, thus saving much weight over regular (paint, dope, etc.) covering and finishing methods.  
**STRONG**—Tensile strength—25,000 P.S.I. / **LOW COST**—Works with LOW HAT FUEL-PROOF (both film and adhesive) / **LONG LASTING** / **MOISTURE-PROOF** / **STAIN-PROOF**  
**PUNCTURE RESISTANT**—Many times the tear strength of silk and dope coverings. APPLIES EASILY OVER COMPOUND CURVES / **ODORLESS** / **NO IRRITATING SMELLS, NO DANGEROUS FUMES**  
**LOWER HEAT COVERING**—More flexible, easier to apply than any other low cost material. **NO SOLVENT NEEDED** to trim with another second color on surface. **WILL NOT STICK TO ITSELF** upon contact of adhesive to adhesive side. Can be used for covering fuselages and solid wood areas with ease.



TOP FLITE MODELS, INC., 1901 N. Narragansett Ave., Chicago, IL 60639

©1977 TOP FLITE MODELS INC.

The instructions above are a reduced reproduction of the actual instruction sheet provided with each roll of Econokote. Steps #1 through #10 are exactly the same for Monokote. Steps #11 through #17 are not applicable to Monokote as Monokote is not intended for use on foam surfaces. The hints and care of Econokote section is true for Monokote as well. The six Econokote colors match the same Monokote colors exactly so that you can "mix-and-match." Both Econokote and Monokote come on rolls that are 26" wide and 6 feet long (Monokote also comes in 25 foot long rolls). Econokote colors are opaque which means that you can't see through the plastic film. Monokote has a clear, 11 opaque colors, 4 transparent colors, and 3 metallic opaque colors. To decorate and trim Monokote or Econokote use Monokote trim sheets, markings, numerals, and insignias (see P-368 for list). Apply Monokote and Econokote with a sealing iron (TopFlite or Sealector) and/or a Top Flite heat gun (see P-304). All these items are pictured to the left also along with Monokote rolls.

ECC48601	ECCNCKOTE	#601	RED	7.75	5.50	307	MEN40404	MENCKOTE	#404	6 FT MET GULC	11.70	7.95	307
ECC48602	ECCNCKOTE	#602	CRANGE	7.75	5.50	307	MEN40405	MENCKOTE	#405	6 FT MET RED	11.70	7.95	307
ECC48603	ECCNCKOTE	#603	YELLOW	7.75	5.50	307	MEN40406	MENCKOTE	#406	6 FT MET BROWN	11.70	7.95	307
ECC48604	ECCNCKOTE	#604	WHITE	7.75	5.50	307	MEN40503	MENCKOTE	#503	6 FT FL DCV GRAY	11.70	7.60	307
ECC48606	ECCNCKOTE	#606	SKY BLUE	7.75	5.50	307	MEN41200	25 FT MONCKOTE	CLEAR	41.25	28.95	307	
ECC48607	ECCNCKOTE	#607	INSIGNIA BLUE	7.75	5.50	307	MEN41201	25 FT MONCKOTE	RED	41.25	28.95	307	
ECC48608	ECCNCKOTE	#608	BLACK	7.75	5.50	307	MEN41202	25 FT MONCKOTE	CRANGE	41.25	28.95	307	
MEN40200	MENCKOTE	#200	6 FT CLEAR	9.90	6.40	307	MEN41203	25 FT MONCKOTE	YELLOW	41.25	28.95	307	
MEN40201	MENCKOTE	#201	6 FT RED	9.90	6.40	307	MEN41204	25 FT MONCKOTE	WHITE	41.25	28.95	307	
MEN40202	MENCKOTE	#202	6 FT ORANGE	9.90	6.40	307	MEN41205	25 FT MONCKOTE	ALUMINUM	41.25	28.95	307	
MEN40203	MENCKOTE	#203	6 FT YELLOW	9.90	6.40	307	MEN41206	25 FT MONCKOTE	SKY BLUE	41.25	28.95	307	
MEN40204	MENCKOTE	#204	6 FT WHITE	9.90	6.40	307	MEN41207	25 FT MONCKOTE	INSIGNIA BLUE	41.25	28.95	307	
MEN40205	MENCKOTE	#205	6 FT ALUMINUM	9.90	6.40	307	MEN41208	25 FT MONCKOTE	BLACK	41.25	28.95	307	
MEN40206	MENCKOTE	#206	6 FT SKY BLUE	9.90	6.40	307	MEN41209	25 FT MONCKOTE	CHROME	41.25	28.95	307	
MEN40207	MENCKOTE	#207	6 FT INSTG BLUE	9.90	6.40	307	MEN41212	25 FT MONCKOTE	CREAM	41.25	28.95	307	
MEN40208	MENCKOTE	#208	6 FT BLACK	9.90	6.40	307	MEN41213	25 FT MONCKOTE	MARCCN	41.25	28.95	307	
MEN40209	MENCKOTE	#209	6 FT CHROME	9.90	6.40	307	MEN41214	25 FT MONCKOTE	GREEN	41.25	28.95	307	
MEN40212	MENCKOTE	#212	6 FT CREAM	9.90	6.40	307	MEN41301	25 FT MONCKOTE	TRANS REC	41.25	28.95	307	
MEN40213	MENCKOTE	#213	6 FT MARCCN	9.90	6.40	307	MEN41302	25 FT MONCKOTE	TRANS ORANGE	41.25	28.95	307	
MEN40214	MENCKOTE	#214	6 FT GREEN	9.90	6.40	307	MEN41303	25 FT MONCKOTE	TRANS YELLOW	41.25	28.95	307	
MEN40301	MENCKOTE	#305	6 FT TRANS REC	9.90	6.40	307	MEN41304	25 FT MONCKOTE	TRANS BLUE	41.25	28.95	307	
MEN40302	MENCKOTE	#302	6 FT TRANS ORANG	9.90	6.40	307	MEN41306	25 FT MONCKOTE	TRANS GREEN	41.25	28.95	307	
MEN40303	MENCKOTE	#303	6 FT TRANS YELLO	9.90	6.40	307	MEN41401	25 FT MONCKOTE	MET GREEN	48.75	33.95	307	
MEN40304	MENCKOTE	#304	6 FT TRANS BLUE	9.90	6.40	307	MEN41402	25 FT MONCKOTE	MET BLUE	48.75	33.95	307	
MEN40306	MENCKOTE	#306	6 FT TRANS GREEN	9.90	6.40	307	MEN41403	25 FT MONCKOTE	MET PLUMB	48.75	33.95	307	
MEN40401	MENCKOTE	#401	6 FT MET GREEN	11.70	7.95	307	MEN41404	25 FT MONCKOTE	MET GOLD	48.75	33.95	307	
MEN40402	MENCKOTE	#402	6 FT MET BLUE	11.70	7.95	307	MEN41405	25 FT MONCKOTE	MET REC	48.75	33.95	307	
MEN40403	MENCKOTE	#403	6 FT MET PLUMB	11.70	7.95	307	MEN41406	25 FT MONCKOTE	MET BROWN	48.75	33.95	307	



# COVERING MATERIALS & COVERING AIDS

## SOLARFILM

# SolarFilm

THE LIGHTEST, MOST DURABLE COVERING MATERIAL AVAILABLE FOR FLYING MODELS

WITH EXCLUSIVE NEW "LOW-HEAT" SENSITIVITY MAKING IT THE EASIEST AND SAFEST TO APPLY!

Eliminates all the tedious work of sealing, doping, sanding and polishing, while giving you a covering which is stronger, lighter, fuel-moisture- and stain-proof. It is easy to maintain, will not slacken, crack or become brittle for the life of your plane. It resists transportation handling better because of its flexibility, high puncture strength and scratch resistance.

**SOLARFILM** is a micro-thin, ultra light film of super-tough polymer (tensile strength of 25,000 lbs./sq. in.), coated on the underside with brilliant, fade-proof pigments and a specially formulated heat-sensitive adhesive. During manufacture, **SOLARFILM** is stretched bi-axially so that later application of heat (275-375 deg. F) jogs its thermo-memory and causes it to gently but firmly shrink. The heat also activates the epoxy-like, fuel-proof adhesive, tightly bonding the shrunk film to balsa, hardwoods, molded foams.

**EXCLUSIVE SOLARFILM FEATURE:** easiest of all films for smooth, compound curves, such as wing tips, cowling and wheel pants.

### STEP BY STEP TECHNIQUE OF APPLYING SOLARFILM

#### TOOLS

Razor blade or X-acto Knife  
Fiber tip marking pen or grease pencil  
Any of the following heat applicators:  
Regular household iron  
Small travel iron  
Heat sealing iron  
Heat Gun

To take full advantage of the latest techniques we recommend both the small heat sealing iron and the heat gun. The iron takes smoother, and fits into tight places, while the gun wrinkles and seals the larger, more open spaces.

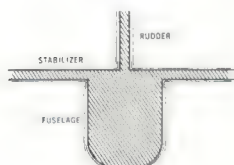
IF FILM IS FRESH AND STICKY —  
UNROLL AND LEAVE OPEN  
FOR ABOUT 24 HOURS  
BEFORE USE.

**PREPARATION.** Although the preparation of your model for covering with **SOLARFILM** is not at all critical, a little care will pay off in terms of final appearance. The smoother the surface to be covered, the more outstanding will be the finished results.

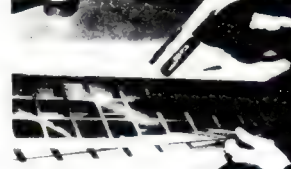
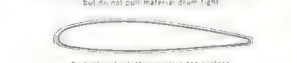
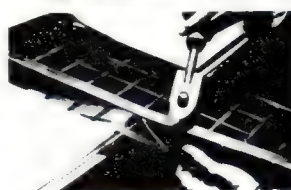
**BARE BALSA OR HARDWOOD SURFACES** should be sanded very smooth, progressing from coarse to fine sandpaper, used dry. Fill and sand all cracks, dings, gouges to even up the surface. You are eliminating the time necessary to apply sealers and dopes of a conventional finish, so take a little extra time at this point to do a super job of smoothing before applying **SOLARFILM**.

**PRE-FINISHED SURFACES** (doped, lacquered, enamelled, epoxy, etc.) need only to be sanded smooth. Because of the lower heat required to activate **SOLARFILM**'s adhesive, it can be applied without blistering the old finish underneath. **CAUTION:** Be extra careful in smoothing the film to eliminate trapped air bubbles. Should any develop, just pick them with a pin or knife point, then touch with your iron to shrink them into invisibility.

**MOLDED FOAM SURFACES** can also be easily covered without melting or bubbling the foam because of the lower heat required for **SOLARFILM**. No special preparation is required except for the usual sanding to provide a completely smooth surface.



PHOTOS—R.C. MODELS MAGAZINE



**APPLICATION.** Set your iron at low or Rayon heat setting, and allow about ten minutes for it to reach a steady temperature. (The **HEAT-SEALING IRON** setting should be just under its hottest temperature.) **WHILE THE IRON IS HEATING, GO OVER SANDED SURFACES SEVERAL TIMES WITH A TACK RAG TO BE SURE THAT ALL SANDING RESIDUE AND DUST PARTICLES HAVE BEEN REMOVED!** Test the temperature of your iron on a **SAMPLE PIECE**, a slight darkening of the film should occur, which will disappear when heat dissipates and shrinkage occurs.

**BEGIN BY APPLYING SOLARFILM** to primary flight surfaces **FIRST**, such as **THE RUDDER AND ELEVATOR**. In order to learn and develop your technique in applying **SOLARFILM**, then progress to the larger **WING** surfaces. Lay out the **SOLARFILM SHEET**, plastic liner side **UP**, and lay the part to be covered on it. Mark the outline with grease pencil, then cut the film panel approximately 1" **LARGER CHORDWISE**, and 3" longer in **LENGTH**. It is recommended that the **BOTTOM** be covered **FIRST**, and that a single piece be used for bottom and another for the top. Wrapping one piece of **SOLARFILM** around the section to be covered is **not recommended**.

Peel off the plastic liner and smooth the panel into place with your fingers, which you will find quite easy as the adhesive is slightly tacky. Now, tack down the edges of the film with the toe of your iron, using a wiping action, but **no pressure**—barely touching the iron to the film. Begin on the leading and trailing edges, working from the center toward the root, then from the center toward the tip.

After the panel is tacked down all around the edges, you are ready to shrink the **SOLARFILM**. Start in the middle of the wing and, very lightly with the flat of the iron, work toward the edges. Small wrinkles may appear around the iron, but will disappear as the iron covers them. Apply heat to a small area at a time, and as it shrinks, rub down immediately with a pad of Kleenex so that the adhesive, now tacky from the heat, will adhere evenly to the balsa surface. Should a large wrinkle occur, heat the edge to un-tack the film, then pull gently to eliminate the wrinkle and proceed. Should bubbles occur from trapped air, just prick them with a pin or knife point, then touch with the iron to shrink them into invisibility. When you get to the wingtip, touch the iron gently over the edges while pulling gently. Trim off excess film from the edges with knife or razor blade. Using 1" masking tape will help you get a straight line. When the masking tape is pulled up the excess material comes with it, leaving a straight, almost invisible seam line.

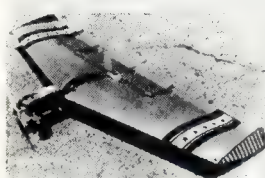
Repeat the process on the top of the section, overlapping the edges 1/2" to 1" all around for a firm, fuel-proof seal. Compound curves at the tip of wing and tail surfaces are covered by applying heat to the film to make it pliable, then gently pulling it over the tip, using the point of the iron to trim it into place. Repeat this process at intervals of an inch or so until the tip until it has been completely sealed. Then, using heat gun and pad of Kleenex, finish and smooth out all wrinkles. Trim off excess and wipe clean as you did with the top section.

**FUSELAGE.** Do the top and bottom first, then the sides. Hand smooth the film first, then, again from the middle toward the ends, and with the iron, your fingers to gently smooth and pull out the wrinkles ahead of the iron. We recommend that you seal any seams and edges inside the engine compartment with a good fuel-proof epoxy to prevent any seepage of fuel under the film.

**TRIM.** Solarfilm itself makes an ideal, inexpensive, applied trim. Mark out the design on the backing sheet and cut out. Message backing sheet, put a few drops of Solarfilm Solvent on a piece of cloth and wipe, but not trace on the adhesive side to soften the adhesive but not to dissolve it. Position trim smoothly with fingers and secure with a set screw. Seal with a color matching acrylic enamel. Details can be applied to Solarfilm with the same acrylic enamel. Match details, use Amalgam Dope. **SOLARFILM SOLVENT** is a powerful solvent, use with caution. **IT IS NOT SUITABLE FOR USE AS A CLEANER.** Use acetone and petroleum for this purpose.

### FOR FOAM & BALSA MODEL AIRCRAFT

Try this super lightweight, durable, polymer covering that is fast becoming the choice of modelers the world over. Check-list these unique features—Fuel, moisture and stain proof... high puncture strength and scratch resistance... plus extreme flexibility... because of our exclusive **LOW-HEAT** sensitivity that makes application easy, even on the first try, on foam, balsa and hardwood... even on those tough jobs like cowling and wheel pants. Solarfilm is now available in a wide range of **OPAQUE, TRANSPARENT & METALLIC** colors, and yes, completely illustrated step-by-step instructions included with every roll. Try them... they're a great cover story!



Covered in opaque red Solarfilm with black and white trim.



Fuselage and tail section in opaque white, with transparent blue wings.

The Instructions shown above are a reduced copy of the actual instruction sheet provided with each roll of Solarfilm. Each roll of Solarfilm is 26 inches wide and 6 feet long. Solarfilm is available in 9 opaque colors, 4 transparent colors, and 3 metallic opaque colors. Also available is Solarfilm solvent which is used to adhere Solarfilm to itself for trim work.

Solarfilm colors match Pactra Aerogloss and Pactra Formula-U colors (see Paint Section) exactly so that you can "mix-and-match" between Solarfilm covered areas and painted areas. A great advantage for those glass fuse-foam wing ships.

Apply Solarfilm with a Sealector or Top Flite sealing iron and/or a Top Flite heat gun (see P-304). Also, Monokote trim sheets, numerals, and markings will work great on Solarfilm (see P-368).

SCL46001	SCLARFILM #6001 BRIGHT RED	8.75	5.40	308
SCL46002	SCLARFILM #6002 DARK RED	8.75	5.40	308
SCL46003	SCLARFILM #6003 ORANGE	8.75	5.40	308
SCL46004	SCLARFILM #6004 YELLOW	8.75	5.40	308
SCL46005	SCLARFILM #6005 WHITE	8.75	5.40	308
SCL46006	SCLARFILM #6006 SILVER	8.75	5.40	308
SCL46007	SCLARFILM #6007 TROPIC BLUE	8.75	5.40	308
SCL46008	SCLARFILM #6008 MIDNIGHT BLUE	8.75	5.40	308

SCL46009	SCLARFILM #6009 BLACK	8.75	5.40	308
SCL46010	SCLARFILM #6601 TRANS RED	10.20	6.30	308
SCL46603	SCLARFILM #6603 TRANS ORANGE	10.20	6.30	308
SCL46604	SCLARFILM #6604 TRANS YELLOW	10.20	6.30	308
SCL46608	SCLARFILM #6608 TRANS BLUE	10.20	6.30	308
SCL47801	SCLARFILM #7801 METALLIC RED	11.50	7.15	308
SCL47810	SCLARFILM #7810 METALLIC GREEN	11.50	7.15	308
SCL47811	SCLARFILM #7811 METALLIC GOLD	11.50	7.15	308



## Electronic Equipment

Electronic equipment will allow you to get the maximum use out of your R/C system. Items that are used with your R/C Equipment are the discharge analyzers and the expanded-scale voltmeters. Other items included in this section are power-panels and tachometers.

A battery discharge analyzer will allow you to check to see that the batteries in your system are holding their full-rated charge. If they are not doing so, then it is time to replace them. A discharge analyzer can also tell you how much of the batteries' capacity is being used each flight. Another useful device is the expanded-scale voltmeter. This device is meant to be used at the flying field. With it, you can tell what the battery voltage is at any time the

plane is on the ground. Since the voltage of the battery will drop as it is being used, a voltmeter can help you determine just how closely you are flying to the end of the batteries' charge. These little devices read only on a small range of voltages, but this range is "expanded" on to a large scale so that you can read the voltage easily and accurately.

A power panel is a device that allows you to have a single-point power source for all of your field support equipment. You can plug your starter, glow-plug wire and fuel pump into the power panel. This will eliminate unsightly wires that lead all over the plane, as well as eliminate a battery for each function you need. Some panels will even allow you to give your radios a quick-charge at the field.

### ACE

A sophisticated piece of lab quality equipment for cycling ni-cd batteries. Accurate, dependable, and attractive.

-Automatic discharging and recharging of both receiver and transmitter batteries, simultaneously or independently.

-Switch for three different transmitter voltages, (6V, 9.6V or 12V).

-Switch for two different receiver charge rates, (20 ma or 50 ma).

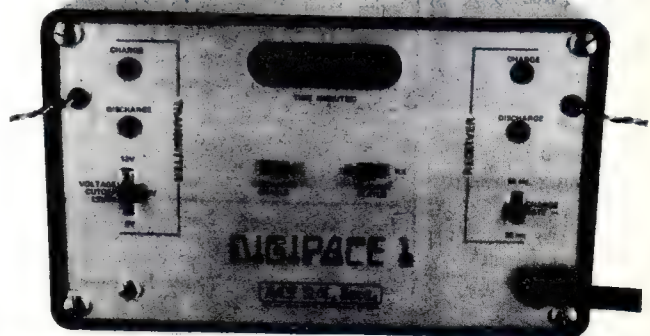
-Four digit LED readout; no mechanical clock motors.

-Modern design and tight tolerance components insure total accuracy down to 1% and 1/10 of a minute.

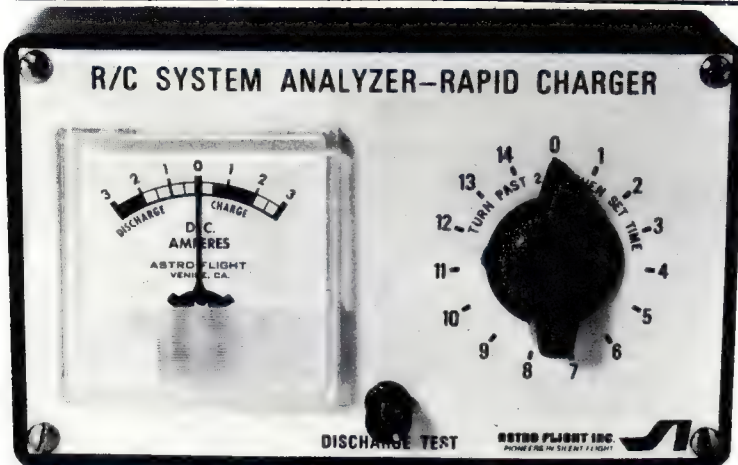
ACE86915 ACE 34615 DIGIPACE I ASSEMBLED

94.95 89.95 309

## DIGIPACE I



## R/C SYSTEM ANALYZER-RAPID CHARGER



## ASTRO FLIGHT (AFI)

### R/C SYSTEM ANALYZER-RAPID CHARGER

#### THE R/C RAPID CHARGER ANALYZER (Patent Pending)

The R/C System Analyzer - Rapid Charger permits the R/C Flyer to determine the condition of his Transmitter and Receiver batteries at the field and should this be indicated to rapidly charge his batteries in 15 minutes at the field. More specifically the unit will

- Indicate normal battery function
- Indicate the presence of a high resistance cell
- Indicate the presence of a shorted cell
- Charge the flight battery in 15 minutes
- Charge the transmitter battery in 15 minutes
- Measure the remaining charge in these batteries in 10 min
- Measure the capacity of fully charged batteries in 10 min

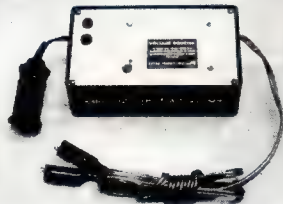
### NEW VOLTAGE BOOSTER

ATTENTION ALL ELECTRIC FLYERS!!!!!! NOW YOU CAN CHARGE ALL ASTRO FLIGHT ELECTRIC SYSTEMS FROM YOUR CAR BATTERY. THIS NEW ELECTRONIC VOLTAGE BOOSTER MAKES 24 AND 30 VOLTS FROM THE 12 VOLTS AVAILABLE FROM YOUR CAR BATTERY. SIMPLY PLUG RAPID CHARGER INTO BOOSTER FOR HIGH VOLTS.

- Charges Astro 10, 15, 25 and 40 systems.
- Uses regular rapid charger.
- Eliminates need for extra gel cell.
- Light and compact.

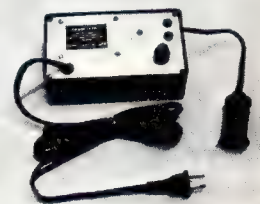
Stock No. 4025

- Both lighter receptacle and banana plug output terminals.



### NEW 12 VOLT POWER SUPPLY

ATTENTION ALL ELECTRIC AUTO FANS. ASTRO FLIGHT BRINGS YOU A POWERFUL TWELVE VOLT POWER SUPPLY FOR INDOOR RACING. JUST PLUG INTO NEARBY 110 VOLT OUTLET AND GET 12 VOLTS AT 4 AMPS FOR YOUR AUTO CHARGER. THIS FIRST CLASS HEAVY DUTY POWER SUPPLY WILL LAST FOR YEARS AND YET IT WEIGHS ONLY 4 POUNDS AND REPLACES HEAVY LEAD ACID BATTERIES..



- Banana plug output terminals
- Lighter receptacle output.
- Input 110 volts from wall receptacle.
- Output 12 volts at 4 amps D.C.

AFI10C06 AFI ANALYZER-RAPID CHARGER  
AFI10C24 AFI 4024 12 VOLT POWER SUPPLY  
AFI10C25 AFI 4025 VOLTAGE BOOSTER

42.50 33.95 309  
29.95 25.45 309  
29.95 25.45 309



## COX ELECTRONIC SURE STARTER

PROVIDES TROUBLE-FREE STARTING  
OF FUEL-POWERED MODEL ENGINES

features:

- L.E.D. READOUT INDICATES FLOODED ENGINE AND GLOW HEAD AND BATTERY CONDITION.
- "CLEAR" BUTTON BURNS OFF EXCESS FUEL FROM FLOODED ENGINE.
- RUGGED DUST AND MOISTURE-RESISTANT CASE.
- GLOW CLIP AND WIRING INCLUDED.

**A revolutionary breakthrough that makes engine starting easy.** A power source developed for all fuel powered engines. Programmed for easy engine starts.

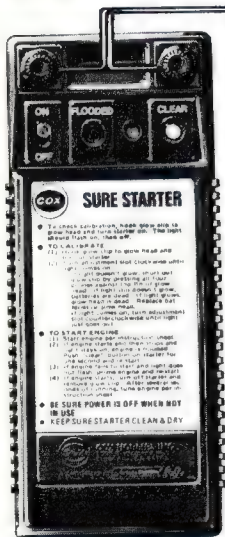
Hand-held electronic "Sure Starter" features L.E.D. indicator.

Provides instant information on condition of glow head, batteries and flooded condition.

Just press a button to immediately burn off excess fuel or deposits on glow head.

Clips to glow head instead of standard starting battery.

Adjustable for all types of glow heads. Uses convenient, readily available batteries. (4-D cells and one 9-volt not included.)



for PLANES, CARS  
AND BOATS

CCX12760 CCX 760 SURE STARTER

19.45 16.55 310

## CRAFT-AIR

DUAL RANGE Expanded Scale Voltmeter

The only device which allows pilot to predict safe flight time available from receiver and transmitter Ni-Cads.

IT'S A FACT!

If you fly R/C, sooner or later you'll have a battery failure! There are just two ways to find that out:

1. CRASH YOUR AIRPLANE.
2. MEASURE THE POTENTIAL OF YOUR BATTERY BEFORE YOU FLY!

SOLID STATE CIRCUITRY

- Know how much safe flight time is available before each flight.
- Know the voltage available to the receiver and transmitter.
- Know the condition of the airborne battery.
- Know the condition of the transmitter battery.
- Plot a characteristic voltage vs time curve at simulated load.
- Cycle the batteries to prevent memory.
- Detect shorted or weak cells before it's too late.
- Use the meter on any 4-cell (4.8 volt) Ni-Cad battery.
- Use the meter on any 8-cell (9.6 volt) Ni-Cad battery.

Built-in load simulates normal average flight battery load.  
1 YEAR GUARANTEE



CRA90C01 CRAFT-AIR #501 VOLTMETER  
24.95 18.70 310



DEANS THREE PIN CONNECTOR

High quality gold plated connectors from Deans for making three connections or less. Polarized to help prevent plugging together backwards. Sleeving included. Easily soldered to.

## DEANS

DEANS FOUR PIN  
CONNECTORS  
ARE ALSO AVAILABLE.



DEANS TWO PIN CONNECTOR

High quality gold plated connectors from Deans. For connections where only one or two contacts are necessary. Sleeving included. Un-polarized. Easily soldered to.

DEA90C20 DEAN'S 2 PIN CONNECTOR SET  
DEA90C30 DEAN'S 3 PIN CONNECTOR SET  
DEA90C40 DEAN'S 4 PIN CONNECTOR SET

1.35 1.30 310  
1.40 1.30 310  
1.50 1.45 310

## PLANE-ALERT

Can you afford to be without one?



- Find Lost Aircraft Fast
- Check for Clear Frequency
- Use to Range Check
- Reminds you to Turn Off Receiver
- Draws only 15 ma. (less than a servo at idle)
- Weighs less than 1 oz.
- 1 Year Free Replacement Guarantee

## MPS PRODUCTS

### SYSTEM-ALERT

System-Alert is a complete audible monitoring system which has a dual function of frequency warning device and a lost plane locator, plus acts as a battery critical voltage monitor!



### POWER-ALERT

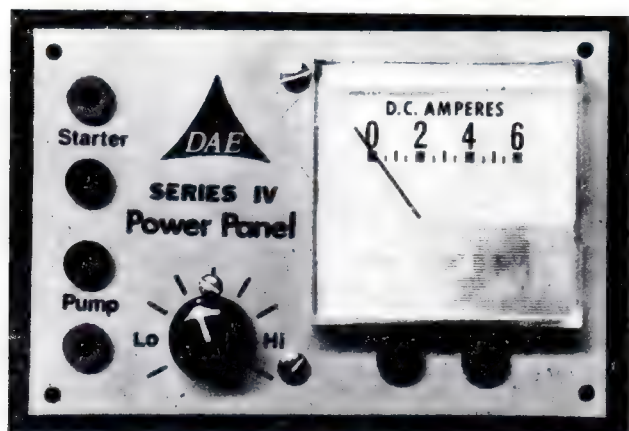
Gives a pulsating-audible warning when batteries reach a critical voltage or when one or more batteries fail.

MPS80100 MPS PLANE-ALERT  
MPS80200 MPS POWER-ALERT  
MPS80300 MPS SYSTEM-ALERT

19.95 17.95 310  
24.95 22.45 310  
32.95 28.95 310



# DA ENTERPRISES SERIES IV POWER PANEL



SERIES IV POWER PANEL

The series IV Panel is the "Top of the Line" of DAE Products. This transistorized solid state unit will power any 12v starter, any 4-12v fuel pump, and any 1½ - 2v glow plug or glow head, PLUS fast charge your radio in 15 minutes. It features variable glow plug and fast charger outputs. The ammeter monitors glow plug condition and battery charging.

DAE9C000 DAE 7605 SERIES IV POWER PANEL 38.95 29.95 311  
DAE90411 DAE 7305 SINGLE RANGE MKII 21.95 17.25 311  
DAE90412 DAE 7405 DUAL RANGE PANEL 26.95 20.95 311  
DAE90500 DAE 79C0 GLO-START PANEL 27.95 22.35 311

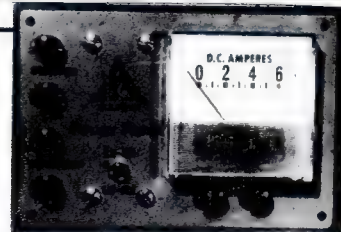


This is the original DAE Power Panel and still is the most popular. It features ammeter indication of plug condition as well as power for your starter, pump and plug.

## DAE Power Panel

**POWER** for your starter-pump-plug  
**AMMETER** indication of plug condition  
**ALL** from your 12-Volt battery

- Battery Cord
- Mating Plugs
- 3" x 5" Easy Mounting



In addition to featuring two voltage current ranges for any glow plug or glowhead, now you can charge your radio at the field in 15 minutes.

## DAE Dual Range Power Panel

**POWER** for any starter, pump, & plug  
**FAST CHARGE** your radio at the field  
**ALL** from your 12-Volt battery

- Includes Hardware
- 3" x 5" Easy Mounting

## GLO-START

This is the newest unit in DAE's line of electronic products. It offers the efficiency of a glow driver and the convenience of a Power Panel. If you use a starter, then Glo-Start is for you! It is 100% solid state, featuring ammeter indication of glow plug condition. The glow plug circuit is automatically regulated, thus starting flooded engines with ease. The unit will operate the following: Any 12 volt starter, any 1.5v glow plug or glow head, and a 12v. fuel pump.



NEW

## TOWER

### DUAL RANGE EXPANDED SCALE VOLTMETER

**LET'S FACE IT! NICKEL CADMIUM BATTERIES ARE JUST NOT AS PREDICTABLE AS WE WOULD LIKE!**

If you fly R/C, sooner or later you'll have a battery failure! There are just two ways to find that out:

1. CRASH YOUR AIRPLANE.
2. MEASURE THE POTENTIAL OF YOUR BATTERY BEFORE YOU FLY!

### SOLID STATE CIRCUITRY

- Know how much safe flight time is available before each flight.
- Know the voltage available to the receiver and transmitter.
- Know the condition of the airborne battery.
- Know the condition of the transmitter battery.
- Plot a characteristic voltage vs time curve at simulated load.
- Cycle the batteries to prevent memory.
- Detect shorted or weak cells before it's too late.
- Use the meter on any 4-cell (4.8 volt) Ni-Cad battery.
- Use the meter on any 8-cell (9.6 volt) Ni-Cad battery.

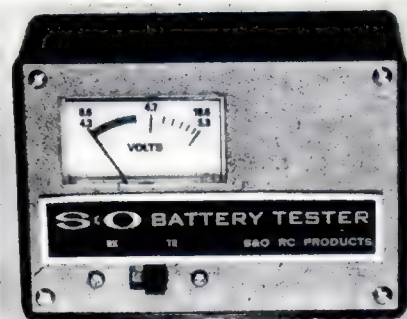


Built-in load simulates normal average flight battery load.  
1 YEAR GUARANTEE

TCW90100 TOWER EXPANDED SCALE VOLTMETER

24.95 16.95 311

## S&O

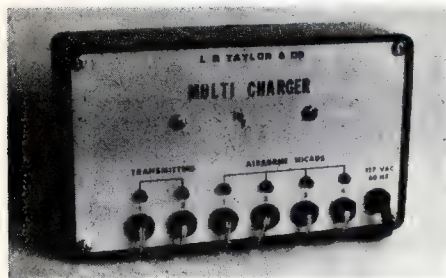


### BATTERY TESTER

- Invaluable field tester
- Tests 8 cell transmitter and 4 cell Ni-CD battery packs under load
- Tells you when it is time to stop flying and charge your batteries
- Easy to use direct reading meter (no knobs to adjust)
- Extremely accurate expanded scales — 4.3 to 5.3 VDC and 8.6 to 10.6 VDC
- Detects bad cells and/or abnormal current drain
- Can be used to determine battery capacity and to discharge transmitter and receiver packs individually or simultaneously

S&C86100 S&O BATTERY TESTER  
29.95 23.95 311





## MULTI CHARGER

At last, a safe, convenient, single-source charger.

### FEATURES

Independently or simultaneously charges up to two transmitters and four airborne nicad battery packs.

Safe charge rate (overnight).

Independent charge circuits for protection of battery packs.

Transformer isolated for user safety.

Will operate with nearly all radio systems on the market.

## POWER

PACER



### CHECK THESE FEATURES:

Detects weak cells, dead cells, reversed cells, and even intermittent cells. Reads actual battery capacity in milliampere hours (MAH).

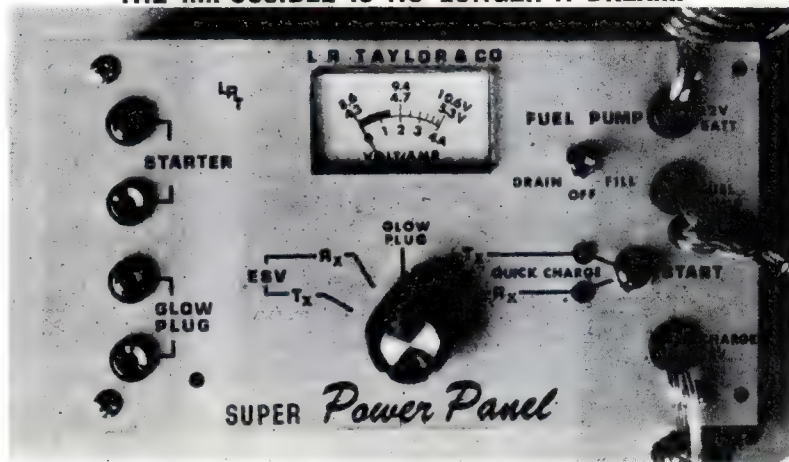
Charges at a safe 50 MAH rate. Eliminates memory build-up and prevents future build-up.

Calculates average MAH usage.

Compatible to all popular radios. Backed by full warranty.

# L R TAYLOR SUPER POWER PANEL

THE IMPOSSIBLE IS NO LONGER A DREAM!



AFTER A YEAR OF DEVELOPMENT AND TESTING,  
WE DID IT AND WE'RE PROUD!

### NO ONE PANEL DOES IT ALL:

- E.S.V. (Expanded Scale Voltmeter) checks battery condition on both Tx and Rx.
- Glo-Driver: Adjustable for all plug voltages. Automatically compensates for fouled plug.
- Field Charger: Both Tx and Rx in either quick-charge or trickle modes. Automatic cut-off protects Ni-Cads.
- Fuel Pump Control: Switch spring-loaded on fill side to avoid spills (pump not included).
- Starter: 12 Volt supply for electric starter.
- Operates from one 12 Volt battery source (not included).
- Completely enclosed: Can be mounted in flight box, or used separately.

LRT80060	POWER PACER 6 V MODEL 200	59.95	49.95	312
LRT80096	POWER PACER 9.6 V MODEL 300	59.95	49.95	312
LRT8106	POWER PACER 10.8 V MODEL 400	59.95	49.95	312
LRT86C00	LR TAYLOR MULTI CHARGER #1000	24.95	21.20	312
LRT9C000	LR TAYLOR SUPER POWER PANEL	89.95	71.95	312

Power Pacer is available in 3 models:

Model 200 — For systems with 6 volt transmitters such as Kraft "A" series.

Model 300 — For systems with 9.6 volt transmitters — standard on most lines.

Model 400 — For systems with 10.8 volt transmitters such as Cox/Sanwa.

## Vari-Pulse Power

Solid State GLOW-PLUG IGNITION System



I/C Circuit Control  
Total circuitry equal  
to 25 Transistors

## SONIC-TRONICS

The perfection of Integrated Circuitry combined with the reliability of Solid State design has made the Vari-Pulse Power Panel a reality in 1980...

There are "No" energy wasting parts in this unit such as large resistors. In fact this panel design saves battery power with its low battery draw and highly efficient drive system. The Vari-Pulse drive power is controlled from the Knob on the panel face and is measured by the Calibrated Meter for both R/C and Standard plugs.

The typical OFF ON switch is not required with this panel as there is "No" Power Draw without a Glow Plug being connected. A switch is contained for the directional control of the Fuel Pump and it is spring loaded in the fill position for safety reasons. The fuel pump power take off connections and power input connections are neatly designed on the rear of the Vari-Pulse's printed circuit board. Glow Plug and Starter power take off's are on the panel face for easy access. The Vari-Pulse Panel is complete with all Cords, Clips and Hardware.

The Vari-Pulse Panel will clearly be the pace setter for all power panels in 1980's.

STR90C00	SONICTRONICS #150 POWER PANEL	39.95	29.95	312
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## PHOTOCELL TACHOMETER

Featuring improved sensitivity, this instrument has three RPM range settings (0-6,000, 0-15,000, 0-30,000). Just point its telescoping probe at a rotating object to obtain RPM reading.



ROY19C00	ROYAL PHOTOCELL TACHOMETER	39.95	35.95	312
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ROYAL



## Electric Starters

While a starter can make starting easier, it can also be the cause for the ruin of many an engine. You must turn the engine over by hand so that you can feel the fact that nothing is going to prevent the engine from turning over when you apply the starter to it. On inverted engines, hydraulic lock, or fuel that has accumulated in the cylinder, can prevent the piston from descending properly, causing the probability of a bent connecting rod or worse.

When using a starter, you should not just apply the starter and hit the button, cranking until the engine fires. The best method is to pulse the starter in short bursts. This is easier on the engine, prevents flooding, and still spins the engine fast enough for it to start if it's ready. You should not use the starter to pull the fuel up to the carburetor. The engine should be prepared for starting in the same manner as if you were going to start it with a flip of the finger. The engine should start with a small blip of the starter.

If you have a balky engine, and it will not start unless you continually give prolonged cranking, you should investigate the problem, since the problem is certainly not endemic with model engines. Extreme balkiness is a symptom of a severe problem.

The starter really comes into its own on certain engines that start readily enough, but are downright dangerous to start by hand. These are the high-nitro, high power engines such as those that are used in Formula 1 events, and control-line speed events. These engines will fire and come around so fast that you cannot pull your hand out of the way fast enough. Use the starter here.

Boats also are a definite place for electric starters. You must have a pulley on the starter, and a groove on the flywheel of the boat, as well as a "V"-belt which must be looped around the flywheel and the starter. When you start the engine, you pull the belt tight, and pulse the starter. When the engine fires, you remove the starter, and put the belt into the boat, and put the boat into the water to keep the engine from overheating.

### AFI



**THE NEW MINI STARTER STARTS THE SMALL ONES FAST.** Specially designed for quick sure starts for 1/4A glow engines, the mini starter features a 12 volt high speed permanent magnet motor with ball bearing front end. The drive cup is designed to fit the COX T.D. prop nut or a small spinner, a groove for a marine o ring is provided, and a rubber boot for starting jerobee cars. Replacement rubber cups and boots available.

AFI12C00 AFI 4013 1/2A MINI-STARTER  
AFI12C01 AFI 4022 DRILL CHUCK

19.95 14.95 313  
10.95 9.85 313

**NEW!! DRILL CHUCK** - attaches to mini starter converting it into a powerful electric drill or grinder. Takes bits from the smallest up to 1/4" including Dremel tools and Black and Decker rotary rasps.



**DRILL CHUCK.** This nifty drill chuck plugs directly into your mini starter converting it into a high speed drill or grinder. High quality Jacobs chuck accepts up to 1/4 inch drills. (4022)

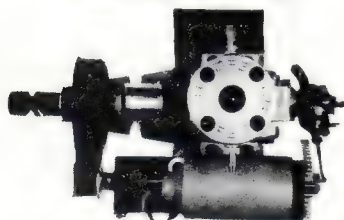
## AEROMARINE

# BOATERS!

## Start Your Marine Engine From Your Transmitter

### BOATERS!

Start Your Marine Engine From Your Transmitter With LECTRA-STARTER



What could be more exciting than starting your marine engine with the boat in the water, while you are standing on the beach. Ideal for the competitor, sports enthusiast and the scale modeler.

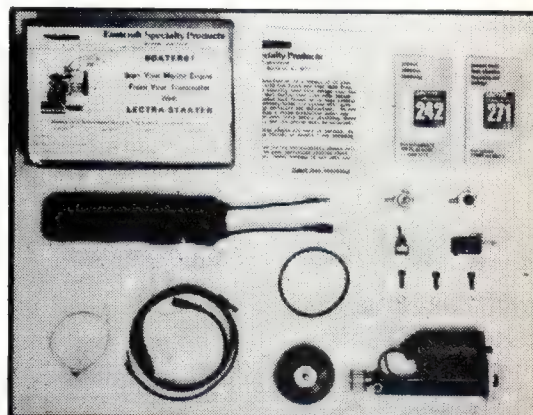
- Now one starter does it all. Will start any engine from a .15 - .90.
- Starter simply bolts on to the motor mount; system requires no extra parts.
- Clutch assembly disengages when engine starts, allowing the engine to run to full speed with no RPM or power loss.
- Simple servo operation.
- 50 - 100 starts per charge.
- Complete package includes all hardware, mechanical, electrical components and battery.
- Completely waterproof.

AEM12C20 AEROMARINE ELECT. BOAT STARTER 129.95 116.95 313

## EASTCRAFT

### AIRCRAFT ON-BOARD LECTRA-STARTER

By now most modelers have either heard about, or seen our ON BOARD engine starting systems perform. After years of design and testing, and two years of remarkable customer acceptance and satisfaction, all our starting systems are now better than ever because they're Easier to install, More versatile, And Available from stock.



**LECTRA-STARTER** comes complete with everything you see here. All mechanical parts are pre-assembled. Complete package includes all necessary hardware, mechanical and electrical components and battery.

EAS12010	EASTCRAFT 201 AIRCRAFT STARTER	109.95	98.95	313
EAS12030	EASTCRAFT 301 CUADRA STARTER	139.95	125.95	313
EAS12040	401 SUPER HUSTLER STARTER	149.95	134.95	313
EAS12100	EASTCRAFT 901 CHARGER	9.95	8.95	313



# ELECTRIC STARTERS

## SONIC-TRONICS

### ELECTRIC STARTER ACCESSORIES:

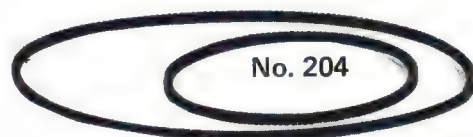
- # 200 Aircraft Starter rubber insert
- # 201 Spinnerless rubber insert
- # 204 Helicopter "V" belt — 300 mm.
- # 205 Boat "V" belt — 500 mm.
- # 206 Aircraft drive cup with insert

No. 200

No. 201



No. 206



No. 204

No. 205

STR12200	SONICTRONICS	#200 ADAPTER SIG.	.98	.85	314
STR12201	SONICTRONICS	#201 ADAPTER	.98	.85	314
STR12204	SONICTRONICS	#204 BELT 300 MM	5.95	5.35	314
STR12205	SONICTRONICS	#205 BELT 500 MM	5.95	5.35	314
STR12206	SONICTRONICS	#206 ALUMINUM CUP	6.95	6.25	314

## NEW!!

90 AND UP SIZE  
24 VOLT MODEL  
DESIGNED FOR  
1/4 SCALE.

## SULLIVAN

For years, Sullivan has had the superstar of starters. The starter that turned on the whole world. The one with higher torque & RPM's, heavy duty, long life motor, "instant-on" strip switch, safety hand guard, and 2-year guarantee.

Now along comes the newest winner — its big brother. A 24-Volt powerhouse with enough torque to start almost anything. Hard-to-start airplane, boat or car engines. The big 1/4-scale monsters. Almost anything.

## PYLON BRAND REALLY STARTED SOMETHING WITH THESE BABIES

Here they are . . . the starters that changed buying habits of modelers overnight. No other hobby item has so completely taken over a market in such a short time. We knew we had developed an economical starter with super power and speed and we expected to do well in the U. S. but . . . thanks to you . . . we now have the #1 starter in the whole world. Merci. Gracias. Danken. Thank you.

### PYLON BRAND HI-TORK, HI-RPM 12 VOLT STARTERS\*

- heavy duty, long life motor.
- higher torque & RPM's than any other starter.
- "instant on" strip switch.
- hand guard for safety.
- 2 year guarantee.

\*Patent pending.

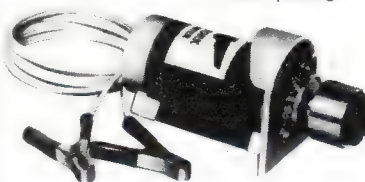


#### STANDARD MODEL

Starts airplanes and cars. Features 1/4-20 threaded metal insert molded in nylon cone, with 1/4-20 lock nut for positive locking cone to shaft.

#### DELUXE MODEL

Starts helicopters, airplanes, boats and cars. Complete with all aluminum 4 in 1 starter cone and pulley.



For: Starting Airplanes & Cars

### NEW "PYLON BRAND" HI-TORK, HI-RPM Standard 12 Volt Starter. (Code No. H.T.)

#### FEATURES:

1. Heavy duty, long life, 12 V Motor
2. Higher Torque & RPM's than any other starter. (More than enough power to start any engine.)
3. "Instant on" Strip Switch (Finger Tip Control).
4. Hand Guard (Keeps hands away from Propeller).
5. Pressure Grip (For Additional Forward Pressure to start the Engine).
6. Starter Cone: With 1/4-20 Threaded Metal Insert Molded in Nylon Cone, with 1/4-20 Lock Nut for Positive Locking Cone to Shaft.
7. Molded Rubber Insert (For: Both Spinner and Propeller starting).
8. All molded parts are of Nylon material.
9. A High Quality Starter guaranteed by The Pylon Brand Name.
10. 2 Year Guarantee (Service Charge Applies)

NO OTHER PRESENT DAY STARTER CAN COMPARE IN POWER, SPEED & PRICE — ASK THE MAN WHO OWNS ONE.

#### REPLACEMENT PARTS:

- # RASP—Rubber insert.
- # RAC—Rubber outside ring for starting cars.
- # 4-A—Aluminum cone for H.T.D. starter

SLL12200	SULLIVAN ELECTRIC STARTER #HT	41.00	28.75	314
SLL12201	SULLIVAN DELUXE STARTER #HTC	45.00	31.50	314
SLL12202	SULLIVAN 24 VOLT STARTER	49.95	34.95	314
SLL12204	SULLIVAN RUB ADAPT SPINR #RAS	1.15	1.05	314
SLL12205	SULLIVAN RUBBER ADAPT CAR #RAC	1.75	1.65	314
SLL12206	SULLIVAN ALUM DRIVE CONE #4-1	4.95	4.50	314

For: Starting Helicopters, Airplanes, Boats & Cars

### NEW "PYLON BRAND" HI-TORK, HI-RPM Deluxe 12 Volt Starter. (Code No. H.T.D.)

#### FEATURES:

1. Heavy duty, long life, 12 V Motor.
2. Higher Torque & RPM's than any other starter. (More than enough power to start any size engine.)
3. "Instant on" Strip Switch (Finger Tip Control).
4. Hand Guard (Keeps hands away from propeller).
5. Pressure Grip (For Additional Forward Pressure to start the Engine).
6. Complete with: All Aluminum 4 in 1 Starter Cone and Pulley.
7. Molded Rubber Insert: (For: Both Spinner and Propeller starting.)
8. All molded parts are of nylon material.
9. A High Quality starter guaranteed by The Pylon Brand Name.
10. 2 Year Guarantee (Service Charge Applies).

NO OTHER PRESENT DAY STARTER CAN COMPARE IN POWER, SPEED & PRICE — ASK THE MAN WHO OWNS ONE



## ENGINE ACCESSORIES

Listed in the engine accessories section is a wide variety of equipment relating to engine care, parts, starting, and more.

In 4-way wrenches we carry Du-Bro, Fox, and Kraft. We have a wide variety of excellent quality glow plugs; the Tower Hobbies brand which is manufactured by Fox is undoubtedly the best buy. We also stock glow heads made by Cox and Fusite.

The prop drives by Du-Bro and Cass are both excellent for the giant 1/4 scale models where lots of power is required. Cox makes an excellent starting kit which includes Super Power

Fuel for Cox engines, starter battery, clip, and wire, and an .049 wrench. Model Products makes the Head Lock glow plug connector that locks on for convenience.

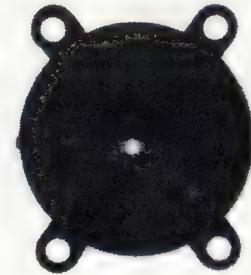
Perry makes a large assortment of replacement carburetors that are well known for their excellent idle and throttle transition. Perry also produces the pressurized carb and pump system that provides more fuel for extra power and eliminates the need to position the fuel tank at the same level or above the intake. Tatone makes the chicken stick for starting engines and saving fingers. Look through this section carefully for more helpful engine aids.

### REED VALVE ENGINE THROTTLE

This simple, yet ingenious throttle designed by Ralph Cooney of Fourmost Racing Products will fit all Cox rear reed valve .049 engines: the Babe Bee, Golden Bee, Black Widow, and QRC.

It doesn't cut any RPM's off the top end as an exhaust restrictor would and effectively idles the engine down to less than 3000 RPM's--adds only a few grams of weight. Still allows use of a muffler.

### ACE



ACE11630	ACE REED VALVE ENGINE THROTTLE	2.50	2.35	315
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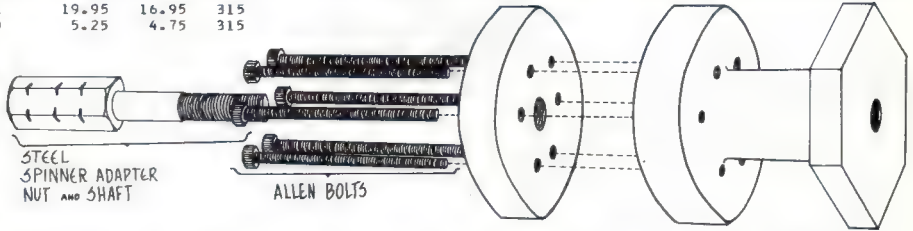
CBA10601	CB QUADRA PROP ADAPTOR	#5601	19.95	16.95	315
CBA10650	CB QUADRA SPINNER ADAPTOR	#5650	5.25	4.75	315

## C.B. ASSOCIATES

### QUADRA 6-BOLT PROPELLER ADAPTER

STEEL  
SPINNER ADAPTER  
NUT AND SHAFT

ALLEN BOLTS



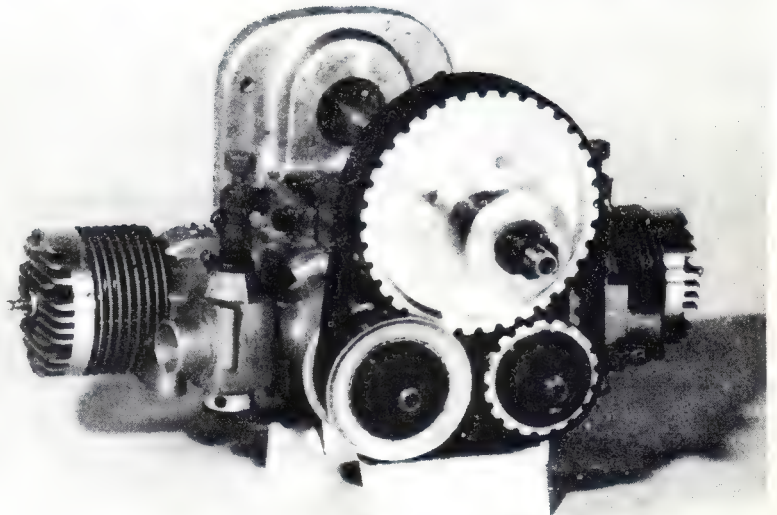
## CASS

# 2 + 2 SUPER DRIVE

Dimensions of  
Unit Shown Using  
O.S. Max .40 FSR  
Engines  
L - 4 3/4"  
W - 6 3/4"  
H - 4 3/4"

Weight less  
Engines  
13 1/2 oz.

Opposed Twin Engine Design -  
2 to 1 Timed Belt Reduction -  
Precision Machined to Accept Most Popular Engines -  
Enormous Power Turns Large High Pitch Props -  
Provides Constant Scale Speeds -  
A New Dimension In Aerobatics For Medium and Large Models -  
Compact Twin .40 Unit Fits Into Most .60 Size Scale Cows -  
Twin .60 Drive Delivers Brute Power For The Big Airplane  
Engines Not Included.



CAS10040	CASS 2+2 SUPER DRIVE-40	99.50	81.95	315
CAS10060	CASS 2+2 SUPER DRIVE-60	109.50	89.95	315



# ENGINE ACCESSORIES

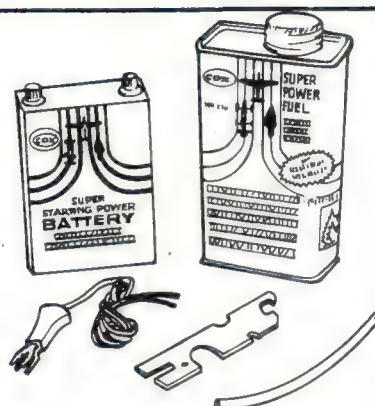
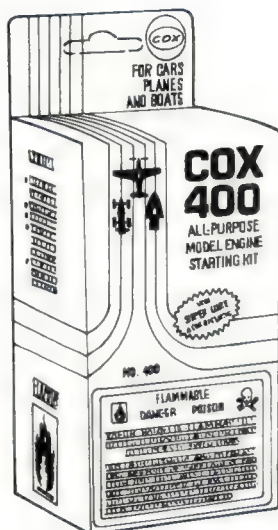
## COX

### Starting Kit

Everything you need to get going!

#### 400 All-Purpose Starting Kit

Everything you need to get a car, boat or airplane engine started right. Contains 1/2-pint of Super Power Fuel™ filler hose, 1 1/2-volt starting battery, glow head clip and a multipurpose .049 engine wrench.



### GLOW HEADS

See the listing to the right for a complete range of replacement glow heads that fit Cox engines from .02 to .15. Also available is the popular No. 325 high power glow head for .049's as well as cylinder, rod, and piston replacement kits. Other accessories available for Cox engines include needle valves, throttle mufflers, and overhaul kits.

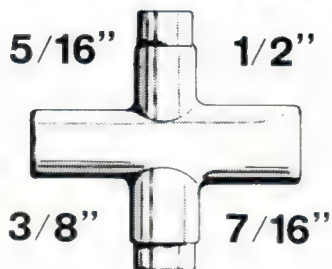
CCX10C00	CCX 1530 WRENCH FOR .049	1.00	.95	316
CCX10400	CCX 400 SUPER POWER START. KIT	7.95	7.15	316
CCX10556	CCX 7556 GLOW PLUG CLIP W/WIRE	1.50	1.45	316
CCX13C20	CCX 1709 NEEDLE VALVE-170,200	1.30	1.25	316
CCX13C40	CCX 1996 OVERHAUL KIT-.049	2.25	2.15	316
CCX13C50	CCX 375 CYL.PIST.ROD/R.V. .049	4.00	3.80	316
CCX13C60	CCX 1775 CYL.PIST.ROD/T.C. .049	6.50	5.85	316
CCX13C61	CCX 2045 CYL.PIST.ROD/T.C. .051	6.50	5.85	316
CCX13C70	CCX 1789 N.VAL&VENTURI TC49 51	8.50	7.65	316
CCX16C49	CCX 3615 THROTTLE/MUFF 049&051	5.00	4.60	323
CCX17C02	CCX 1032 GLOWHEAD ALL .020	1.75	1.65	316
CCX17104	CCX 1702 GLOWHEAD TC 49/51/049C	2.25	2.15	316
CCX17105	CCX 325 GLOW HEAD-HI POWER 049	1.90	1.80	316
CCX17109	CCX 2102 GLOWHEAD TEE DEE .09	2.95	2.80	316
CCX17209	CCX 2302 GLOWHEAD MEDALLION.09	2.95	2.80	316
CCX17215	CCX 1102 GLOWHEAD MEDALLION.15	2.95	2.80	316

## DU-BRO

Completely assembled  
less engine  
& prop.



## 4-WAY SOCKET WRENCH



PERFECT FOR GLO-PLUGS,  
PROP NUTS AND NYLON  
BOLTS. ALSO FITS METRIC  
SIZES 8 M TO 13 M.

DUR20210 DUBRO 210 PROP DRIVE UNIT  
DUR20227 DUBRO 227 BELT FOR PROP DRIVE  
DUR20251 DUBRO 251 4-WAY WRENCH

100.00 79.95 316  
6.00 5.40 316  
2.95 2.65 316

☆ BUD NOSEN PICKED THE DU-BRO  
**PROP DRIVE UNIT** TO  
POWER HIS NEW 102" P-51-D MUSTANG!  
(BECAUSE IT REALLY WORKS!!!)

☆ SOUNDS LIKE A REAL AIRCRAFT ENGINE

☆ SWING 18", 20", 22", AND 24" GRISH BROS.  
PROPS WITH 8" OR 10" PITCH WITH YOUR .60  
ENGINE -

## MODEL PRODUCTS

### "HEAD LOCK" MARK III "HEAD LOCK" GLOW PLUG CONNECTOR

This safe, reliable glow plug connector will not come off even under heavy engine vibration. To engage the connector align it with the glow plug, push in, rotate clockwise to the stop (30 degrees), and release. "Head Lock" is now locked on. To remove the connector, push in, rotate counter clockwise to the stop, and pull off. The safety and convenience of the lock on feature, coupled with the reliable spring loaded contact and axial attachment through a simple hole in engine cowlings, make it the finest glow plug connector available today.



MPC20C00 MODEL PRODUCTS HEAD LOCK

2.95 2.80 316



# ENGINE ACCESSORIES

## FUSITE



**1/2-A PLUGS:** Prototypes immediately set new records! Get at least 1000 more RPM, greater power and longer life by replacing the plug in your popular 1/2-A engine with a new GloBee—at competitive prices! Racing models have new high strength coil; both Racing and Sport plugs have patented spiral tip and blow-proof glass seal. Change heads with standard wrench.



R/C Model

Users report an immediate increase in power by simply switching to a GloBee R/C plug. It features the same flat-wound spiral and superior glass-to-metal seals as the racing model for improved performance and longer life. An idle bar is added and a small cavity provided for smoother idle, better low speed characteristics, and ideal transition through the power ranges. R/C plugs come in two lengths—short (GB-2S) and long (GB-2L).

Also available are the 2 volt 4S and 4L racing plugs that are ideal when burning high nitro fuel.

FUS15010	GLOBEE GB-5P	1/2A PLUG-SPORT	2.25	2.05	317
FUS15020	GLOBEE GB-5R	1/2A PLUG-RACING	2.05	1.85	317
FUS15100	GLOBEE GB-2S	R/C SHORT PLUG	1.90	1.60	317
FUS15200	GLOBEE GB-2L	R/C LONG PLUG	1.90	1.60	317
FUS15300	GLOBEE GB-4S	RACING PLUG-SHORT	2.40	2.15	317
FUS15400	GLOBEE GB-4L	RACING PLUG-LONG	2.40	2.15	317

## LUSTROX

NO. 90811  
LUSTROX... mix with oil and dab in intake during first run, polishes running surfaces for more RPM and longer life.

## FOX

## PRESSURE FITTINGS

For use in tapping muffler or crankcase pressure for pressurized fuel systems. Machined from 3/16 inch HEX brass bar. small - neat. 4-40 or 6-32 threads.

4-40 thread  
6-32 thread

PART NO. 90501  
PART NO. 90502



## GLOW PLUGS

The World's Finest



## PROP SHAFT EXTENSIONS

Improved type extensions are now supplied with a special nut and washer so that a standard Fox spinner will fit right on. Nut and washer are made from steel and spool from aluminum alloy.

1/2" Long 1/4-28 Thread #FOX16412  
3/4" Long 1/4-28 Thread #FOX16413  
1/2" Long 5/16-24 Thread #FOX16414  
3/4" Long 5/16-24 Thread #FOX16415

FOX15101	FOX RC LONG PLUG-ONE ONLY	1.49	1.25	317
FOX15112	FOX RC LONG PLUG-ONE DOZEN	17.88	12.95	317
FOX15201	FOX RC SHORT PLUG-ONE ONLY	1.49	1.25	317
FOX15212	FOX RC SHORT PLUG-ONE DOZEN	17.88	12.95	317
FOX16412	FOX #90412 EXT. 1/4-28 X 1/2	3.75	3.45	317
FOX16413	FOX #90413 EXT. 1/4-28 X 3/4	3.75	3.45	317

## FOX FOUR WAY WRENCH



The Fox Four Way Wrench is a professional grade tool specifically designed for those who like the four way design but are not satisfied with the low grade die cast tools now on the market. The Fox Four Way Wrench is the finest you can buy. The beautiful chrome finish of the Fox Four Way Wrench doesn't work one bit better than if it were a dull, battle-ship gray, but it does a world of good for your morale and pride and isn't "pleasure" what modeling is all about?

FOX16414	FOX #90414 EXT. 5/16-24 X 1/2	4.00	3.70	317
FOX16415	FOX #90415 EXT. 5/16-24 X 3/4	4.00	3.70	317
FCX20501	FCX #90501 PRESSURE FTNG 4-40	1.25	1.20	317
FCX20502	FCX #90502 PRESSURE FTNG 6-32	1.25	1.20	317
FOX27104	FOX #70104 4-WAY WRENCH	7.95	7.15	317
FOX56811	FOX #90811 LUSTROX	.75	.70	317

## KRAFT

### 4-WAY WRENCH

This deluxe wrench for glow plugs and prop nuts has four hex openings for 5/16", 3/8", 7/16" and 1/2" nuts. It also has four threaded holes around the hub which will accommodate extra glow plugs. It also features a clip inside the 5/16" opening to retain the glow plug while it is being installed or removed.



KRA27100	KRAFT 200-202 4-WAY WRENCH	4.50	3.95	317
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### K & B GLOW PLUG with IDLE BAR

An improvement in the original "idle bar" glow plug. It can be recognized by its distinguishing "gold post." For controlled engine speed that will run at a required given speed up to a constant maximum—for R/C, Carrier, and Scale Flying.

Note: Do not exceed 1 1/2 volts.

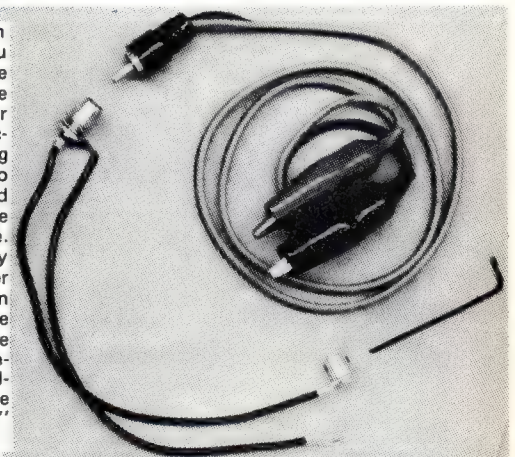
## K & B

K&B15301	K&B #4520 RC LONG PLUG 1	1.65	1.45	317
K&B15312	K&B #4520 RC LONG PLUG *DOZEN*	19.80	14.95	317
K&B15351	K&B 4530 RC SHORT PLUG 1	1.65	1.45	317
K&B15401	K&B #7321 STD. SHORT PLUG-1	1.10	1.05	317
K&B15501	K&B 7311 KB-1L STD LONG PLUG-1	1.10	1.05	317

## ROYAL

### ROYAL'S BUILT-IN GLOW PLUG STARTING HARNESS

With Royal's new built-in starting harness, you don't have to be on the "in" to get your engine started right. As a matter of fact, this handy accessory lets you plug your starting battery into an external jack mounted anywhere on the outside of the aircraft's fuselage. This feature is especially handy for cowled-in or hard-to-get-at engines. In short, for convenience sake, it pays to have the right connections. Set includes pre-wired jack, alligator clips, positive glow plug "head gripper" and allen wrench.

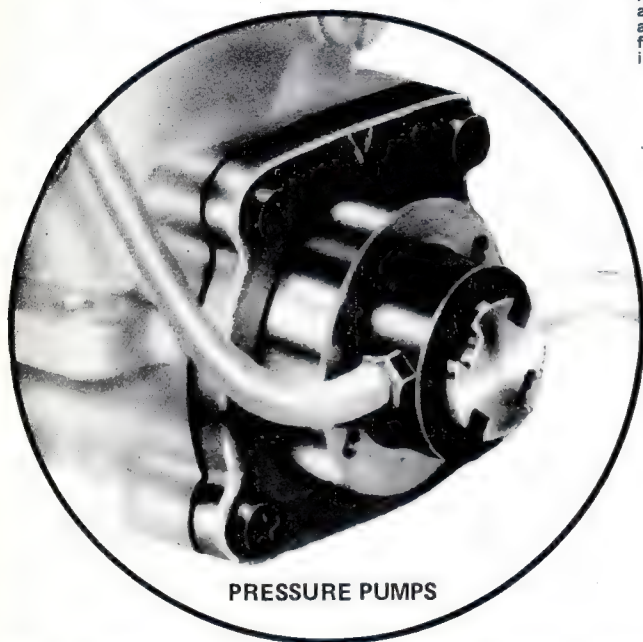


ROY20210	ROYAL BUILT-IN STARTING HRNSS.	4.95	4.70	317
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# ENGINE ACCESSORIES

## PERRY CARBURETORS



PRESSURE PUMPS

Perry carburetors are very popular among modelers everywhere. The regular carbs are for replacement of existing carburetors on the engines listed (100, 200, and 300 series). The 800 and 900 series pressure pumps and carbs replace existing carb with a pressurized fuel system - they must be used as a pair. Perry air cleaners fit Perry carbs only - 100 series carbs use PER11501 and both the 200 and 300 series carbs use PER11502. Replacement needle valves are available for the large and medium (100 and 200 series) old style carbs that have a spring on the needle valve. Order PER11900 for these. For the new style carbs that have an "O" ring instead of the spring there are three different replacement needle valves depending upon if it is a pumper carb (PER11930). Also, replacement carb barrel base "O" rings are available (PER11940). Perry is in the process of changing the needle valve set-up on his carbs. The older style uses springs with the needle valves; the new set-up uses O-rings which prevent the needle valve from vibrating out while the engine is running. Most of the carbs have been converted to O-rings. You must order a different replacement needle valve for carbs with O-rings. For pumper carbs order PER11920; for large carbs (100 series) order PER11925; and for small and medium carbs (200 & 300 series) order PER11930. Also, replacement carb barrel base O-rings are available PER11940.

## PERRY AIR CLEANER

Protects engine from airborne dirt and at the same time improves idle and provides a greater economy of fuel... fuel spray is drawn back into the carburetor.



## PERRY

PER11101	PERRY CARB 101 ST G 60-71	22.95	18.50	318
PER11103	PERRY CARB 103 WEBRA/KRAFT 61	22.95	18.50	318
PER11104	PERRY CARB 104 VECG K&B 61	22.95	18.50	318
PER11105	PERRY CARB 105 HP 61	22.95	18.50	318
PER11106	PERRY CARB 106 ST 51-60	22.95	18.50	318
PER11107	PERRY CARB 107 CS MAX 60	22.95	18.50	318
PER11108	PERRY CARB 108 ENYA 60	22.95	18.50	318
PER11205	PERRY CARB 205 K&B 40	19.95	16.25	318
PER11206	PERRY CARB 206 ST 40-46	19.95	16.25	318
PER11207	PERRY CARB 207 CS MAX 40	19.95	16.25	318
PER11208	PERRY CARB 208 ENYA 45	19.95	16.25	318
PER11209	PERRY CARB 209 ST G 21-46	19.95	16.25	318
PER11210	PERRY CARB 210 HP40 & WEBRA 40	19.95	16.25	318
PER11301	PERRY CARB 301 CS MAX 30,35	18.45	14.95	318
PER11302	PERRY CARB 302 CS MAX 25	18.45	14.95	318
PER11303	PERRY CARB 303 CS MAX 20	18.45	14.95	318
PER11305	PERRY CARB 305 CS MAX 15	18.45	14.95	318
PER11306	PERRY CARB 306 ST 20-23	18.45	14.95	318
PER11308	PERRY CARB 308 VECG K&B 19	18.45	14.95	318
PER11313	PERRY CARB 313 ENYA 19	18.45	14.95	318
PER11316	PERRY CARB 316 K&B 21 SCHNEURL	18.45	14.95	318
PER11401	PERRY PRES CARB 900 K&B 61	23.95	19.25	318
PER11402	PERRY PRES CARB 902 OS 60 BH	16.95	13.75	318
PER11403	PERRY PRES CARB 903 WEBRA 61	23.95	19.25	318
PER11405	PERRY PRES CARB 905 ST 51-60	23.95	19.25	318
PER11406	PERRY PRES CARB 906 ST G60-71	23.95	19.25	318
PER11407	PERRY PRES CARB 901 OS 60 FSR	16.95	13.75	318
PER11410	PERRY PRES CARB 910 WEB SP 61	23.95	19.25	318
PER11411	PERRY PRES CARB 911 KRAFT 61	23.95	19.25	318
PER11470	PERRY PRES CARB 907 K&B 40	23.95	19.25	318
PER11501	PERRY AIR CLEANER 51-71	2.95	2.65	318
PER11502	PERRY AIR CLEANER 15-50	2.95	2.65	318
PER11601	PERRY PRES PUMP 800 K&B 61	28.95	22.25	318
PER11602	PERRY PRES PUMP 802 OS 60 BH	28.95	22.25	318
PER11603	PERRY PRES PUMP 803 WEBRA 61	28.95	22.25	318
PER11605	PERRY PRES PUMP 805 ST 51-60	28.95	22.25	318
PER11606	PERRY PRES PUMP 806 ST G60-71	28.95	22.25	318
PER11607	PERRY PRES PUMP 801 OS 60 FSR	28.95	22.25	318
PER11610	PERRY PRES PUMP 810 WEB SP 61	28.95	22.25	318
PER11611	PERRY PRES PUMP 811 KRAFT 61	28.95	22.25	318
PER11670	PERRY PRES PUMP 807 K&B 40	28.95	22.25	318
PER11900	PERRY NEEDLE VALVES LG&M CARB	1.20	1.15	318
PER11920	PERRY 8024 NEEDLE VALVE-PUMPER	3.60	3.40	318
PER11925	PERRY 8024-1 NEEDLE VALVE-LG.	3.60	3.40	318
PER11930	PERRY 8024-2&3 N. VALVE-S&M&C	3.60	3.40	318
PER11940	PERRY 8026 C RING-ALL CARBS 2	1.25	1.20	318

## PRATHER

### AFTER-RUN ENGINE OIL

New!

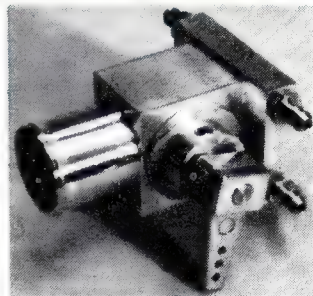


- Prevents Gumming
- Prevents Rust
- Extends Engine Life
- Easier Starts

Our engine oil is formulated to protect your engine while it is not being used. Oil comes in convenient squirt bottle that can be used for a prime bottle when empty.

## HIGH-PERFORMANCE EXHAUST THROTTLES

Their new Exhaust Throttles feature a unique internal O-Ring design for ease of operation and to prevent exhaust leakage. Cooling is achieved with two (2) water cooled chambers. Throttles fit the K&B 6.5-7.5 and the K&B 3.5. Each size is also available in 12° and 20° exhaust angles.



PR11CC00	PRATHER 7140 ENGINE OIL	1.69	1.60	318
PR11220	8220 K&B40-45 12D.EXH THROTTLE	49.95	44.95	318
PR11230	8230 K&B40-45 20D.EXH THROTTLE	49.95	44.95	318
PR11240	8240 K&B3.5CC 12D.EXH THROTTLE	44.95	40.45	318
PR11250	8250 K&B3.5CC 20D.EXH THROTTLE	44.95	40.45	318



## R & S

### "PERFECT" Model ENGINE CLEANER

"AT LAST" A new engine cleaner specially formulated not to harm model engine parts. Will not harm Perry carburetors, plastic parts, gaskets, ball bearings, and is non-irritating to skin.

Perfect Engine Cleaner Removes:

- Oil
- Varnish
- Dirt

1 PINT

R+S-0016 R+S HOBBY ENGINE CLEANER 16 OZ 3.00 2.85 319

## SONIC-TRONICS



for the best  
STARTING, IDLING and PERFORMANCE

### "R/C PLUGS"

Special Platinum Alloy element insures the best in performance, dependability, easy starting and the lowest idling speed.

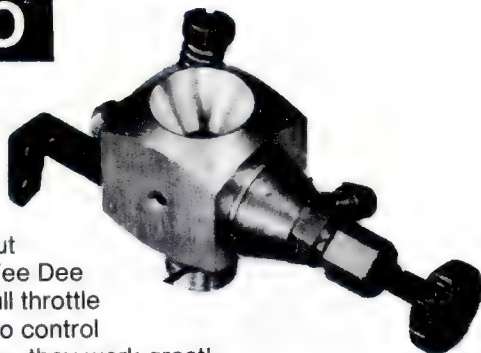
No. 300 Long Thread 1½V

No. 305 Short Thread 1½V

STR15300	SONICTRONICS 300 RC LONG PLUG	1.69	1.50	319
STR15305	SONICTRONICS 305 RC SHORT PLUG	1.69	1.50	319

## TARNO

Tarno carbs are designed to fit Cox Tee Dee .049-.051 engines. Simply put one on and your Tee Dee engine will have full throttle control for full radio control operation. Try one—they work great!



TAR11000 TARNO AERO 1/2 A RC TARNO-CARB 14.75 12.50 319

## TOWER HOBBIES

These outstanding glow plugs are manufactured for Tower by the world's largest and finest glow plug manufacturer. They are the finest 1½ volt RC long plugs available at any price, and due to Tower's direct marketing the price is kept to the lowest price anywhere. These are first class plugs that have idle bars to keep your engine running smoothly. Try a dozen today!

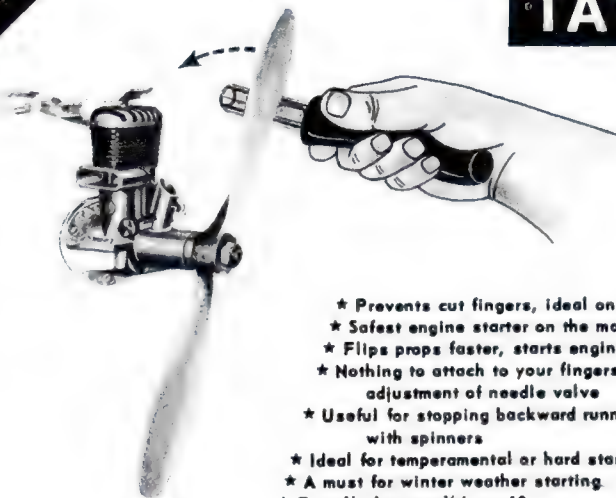


TCH15001	TOWER RC LONG PLUG -ONE ONLY-	1.49	1.25	319
TCH15006	TOWER RC LONG PLUG - SIX PLUGS	8.94	5.95	319
TCH15012	TOWER RC LONG PLUG -ONE DOZEN-	17.88	10.95	319

## "Chicken Stick" ENGINE STARTER



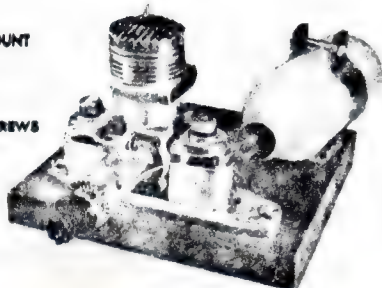
← THIS  
or  
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- ★ Prevents cut fingers, ideal on sharp nylon props
- ★ Safest engine starter on the market
- ★ Flips props faster, starts engines quicker
- ★ Nothing to attach to your fingers, hand is free for adjustment of needle valve
- ★ Useful for stopping backward running engines equipped with spinners
- ★ Ideal for temperamental or hard starting engines
- ★ A must for winter weather starting
- ★ For all classes, ½A to .60

## ENGINE TESTING UNIT

- CAST ALUMINUM ENGINE MOUNT
- FULLY ADJUSTABLE
- 4 OZ. TANK AND FITTINGS
- TANK MOUNTING BRACKET
- INCLUDES ALL MOUNTING SCREWS
- FITS ALL ENGINES, 1/2 A-.74



Special long lasting,  
non-marring plastic tip

Fuel resistant  
enameled handle



"Chicken Stick"

TAT20051	TATONE #51 CHICKEN STICK	1.75	1.65	319
TAT20080	TATONE #80 ENGINE TEST STAND	12.50	10.95	319



# ENGINE MOUNTS

## Engine Mounts

Proper use of an engine mount is extremely important in guaranteeing you a long life for your plane. It seems hard to believe that an engine mount can be used improperly, but it can. How many times have you drilled the holes for the mounting screws, only to find that they are not all straight, or located properly. Instead of replacing the mount and starting over, you just ignore the problem and mount the engine improperly. You have just taken the first step to shortening the life of your engine ... and at today's prices, nobody can do that for long!

All of the mounts we carry are good. They vary in types of materials they are made of, and shape, and of course, size. Kraft and Bridi mounts are made of Fibreglass-filled nylon that has been molded into the proper shape. They both come in a variety of sizes to fit almost any engine. They offer low price and light weight.

C.B. Associates and Fox both offer aluminum mounts. Both firms offer good, rugged mounts. The C.B. are of cast aluminum which has been machined to insure that the mounting beams are aligned and perpendicular to the firewall mounting plate. The Fox mounts are completely machined out of aluminum bar stock, and as such, have been carefully made to insure that their alignment is just right.

Aluminum mounts, while heavier than the nylon variety, are much more rugged, and can take more abuse. These mounts are also able to be drilled and tapped, relieving you of the necessity of having to use extra nuts and lock washers.

In addition to their line of nylon mounts, Kraft has introduced a new line of cast aluminum mounts. Included in this line is a mount for the Kraft and Webra .61's.

### ACE



**ACE 1/2A MOTOR MOUNT**

Tired of breaking motor mounts on your 1/2A pattern or pylon ship? This rigidly braced molded nylon motor mount for Medallion and Tee Dee .049/.051's is almost indestructible. We back it up by saying: "Ace R/C will replace free of charge any 1/2A Motor Mount that breaks for any reason, including a crash!"

This unique mount has mounting ears for a nose gear if desired. Weighs only 5.7 grams (.2 oz.). Engine mounting hardware included.

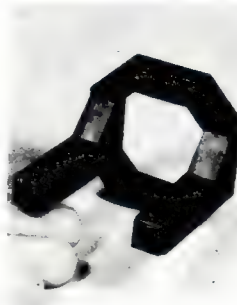
ACE14C10 ACE PM 1/2 A MOTOR MOUNT

1.29 1.20 320

### BRIDI

## FIREWALL ENGINE MOUNTS

Made of molded glass-filled nylon



- MOUNTS ENGINE VERTICALLY OR AT 90 or 45°
- CAN BE DRILLED FOR NOSEGEAR
- FLAT SURFACE FOR NOSEGEAR COLLARS
- TOP AND BOTTOM OF ARMS PARALLEL FOR ENGINE MOUNT SCREW NUTS
- OCTAGONAL DESIGN FOR EASY ALIGNMENT

FOR ENGINE SIZES .05, .09, .15, .19, .40, .60, and .60 WITH PUMP

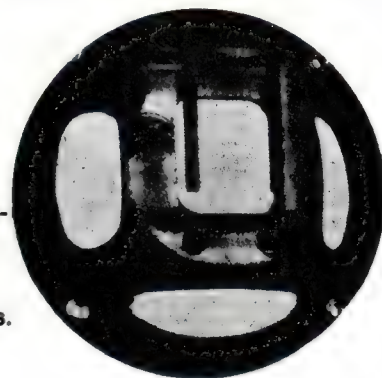
BR114C05	BRIDI ENGINE MOUNT .05	2.19	2.10	320
BR114C09	BRIDI ENGINE MOUNT .09	2.39	2.30	320
BR114C15	BRIDI ENGINE MOUNT .15	2.49	2.40	320
BR114C19	BRIDI ENGINE MOUNT .19	2.79	2.60	320
BR114C40	BRIDI ENGINE MOUNT .40	2.89	2.70	320
BR114C60	BRIDI ENGINE MOUNT .60	3.28	3.10	320
BR114C61	BRIDI ENGINE MOUNT .60L	3.49	3.30	320



## C.B. ASSOCIATES

### NEW QUADRA ENGINE MOUNT

Rugged cast aluminum construction, with four pre-drilled mounting bolts. Can cut engine vibration by 50%. Compact 5 1/2" diameter fits most firewalls. Circular design permits engine to be rotated in any direction.



C.B. engine mounts are cast aluminum, heat treated, and machined flat for all the popular engine sizes. These mounts are very high quality and guaranteed against breakage.

NOTE: Mounts with an "R" suffix designation are designed for rear rotor engines. "P" suffix designations are for pumper engines.

### NEW MONSTER MOUNTS

Monster-size engines need monster mounts and C.B. has released more of their cast aluminum units specifically made for such large power plants. Now available are mounts to fit big .60's (such as OPS and Rossi), .80's, .90's and even the Quadra engine.

CBA14049	C B MOUNT 1/2A-SHORT #5401	3.50	3.20	320
CBA14050	C B MOUNT 1/2A-LONG #5402	3.85	3.65	320
CBA14150	C B ASSOCIATES MOUNT .15 #5301	6.30	5.65	320
CBA14151	C B ASSOCIATES MOUNT .15R #5302	6.50	5.85	320
CBA14200	C B ASSOCIATES MOUNT .20 #5303	6.20	5.60	320
CBA14300	C B ASSOCIATES MOUNT .30 #5304	6.25	5.65	320
CBA14400	C B ASSOCIATES MOUNT .40 #5305	6.60	5.95	320
CBA14401	C B ASSOCIATES MOUNT .40R #5306	7.95	7.15	320

CBA14600	C B ASSOCIATES MOUNT .60 #5307	7.95	7.15	320
CBA14601	C B ASSOCIATES MOUNT .60R #5308	7.95	7.15	320
CBA14602	C B ALUMINUM MOUNT .60P #5312	8.75	7.90	320
CBA14800	C B ASSOCIATES MOUNT .80 #5309	8.75	7.90	320
CBA14814	C B MOUNT .80HC-ROSSI,OPS-#5314	9.95	8.95	320
CBA14900	C B ALUMINUM MOUNT .90 #5310	11.95	10.45	320
CBA14913	C B ASSOCIATES MOUNT-OS90 #5313	11.95	10.45	320
CBA14920	C B ALUMINUM MOUNT-QUADRA #5311	22.95	18.95	320



# ENGINE MOUNTS

## EDSON SOCKET HEAD HARDENED BOLT SET

Cat. No. HD-7

Edson . . . . . Recommends Hardened Socket Head Screws for Mounting your Engine to FIREWALL . . . Package includes (4) Soc. Hd. Scrs., (4) Blind Nuts, (1) Allen Wrench, HD-7 (8-32)X1 1/4" lg.

Edson Recommends our Socket Head Bolt Set . . . for mounting your engine. Package includes four bolts, four serrated washers and four lock nuts, and one Allen wrench. Available in two sizes; Edson Series HD-5 (5-40X1" lg.) or HD-6 (6-32X1" lg.)

Nylon (2°) Thrust Ring is mounted between the Edson motor mount and firewall or between the Edson motor mount and nose gear. In combination with the Edson motor mount you have the choice of positioning your motor in the desired direction or thrust for which the aircraft has been designed.

Cat. No. M-51-5 (5-40) for Short Jaws (.15-.35) Engine

Cat. No. M-51-6 (6-32) for Long Jaws (.40-.80) Engine

Edson Spring Locknut Retainer

Edson makes engine installation as simple as 1, 2, 3.

ECS14C01	EDSON ADJUSTABLE MOTOR MOUNT	6.95	6.25	321
ECS14C56	EDSON TR-56 THRUST RING	1.25	1.20	321
ECS14S40	EDSON M-51-5 NUT RETAINER 5-40	2.50	2.40	321
ECS14632	EDSON M-51-6 NUT RETAINER 6-32	2.50	2.40	321
ECS27540	EDSON HD-5 MNTG. SCREWS 5-40X1	1.19	1.15	321
ECS27632	EDSON HD-6 MNTG. SCREWS 6-32X1	1.19	1.15	321
ECS27832	EDSON HD-7 BCLTS 6-32X1 1/4"	1.98	1.90	321

## EDSON

## EDSON MOTOR MOUNT ASSEMBLY

Cat. No. M-50

Edson has developed this universal, adjustable motor mount to fit all model airplane engines from .15 cubic inches thru .80 cubic inches. The Edson hardened cast aluminum motor mount comes supplied with a set of small jaws for 15 thru 35 cubic inch engines and a set of large jaws for .40 thru .80 cubic inch engines plus necessary hardware. Full instructions are included with each kit.

## FOX

### MACHINED FROM BAR

The Fox Motor Mounts are lighter, stronger, and more rigid than cast mounts or ones made from fiberglass filled plastic. Destructive vibration is reduced with a rigid motor mount - and Fox is the strongest - most rigid you can buy.

In the event that you make a crash landing, if a motor is supported by a good sturdy Fox Mount the crankcase is often saved. A mount that will give away first on one mount and then the other, twists and ruins the crankcase. An advantage of the Fox Mount over wood mounts is that thrust changes can easily be made. If the mount is attached to the fire wall with blind nuts all you have to do is to loosen the four screws from the front, insert a shim under the top or sides. In this way very precise thrust adjustments can be made.



LARGE



MEDIUM



SMALL

FCX14201	FCX #50201 ENGINE MOUNT	7.00	6.30	321
FCX14203	FCX #50203 ENGINE MOUNT	7.00	6.30	321

### LARGE SERIES

Part No.	Width
50601	1.475
Fits OS 60, S.T. 51, S.T. 56, S.T. 60, Enya 60, Merco 60	
50602	1.525
Fits Fox Eagle, Fox Hawk, Veco 60, Webra 61, H.P. 61	
50603	1.640
Fits Fox 74, Fox 78, S.T. G-60	
50604	1.720
Fits Enya Schneurle, Rossi 60	

### MEDIUM SERIES

Part No.	Width
50401	1.217
Fits Fox .29 new, Fox .36 new, Fox .35 all, OS .30	
50402	1.281
Fits Fox .36X all, Fox .36 BB all, S.T. .35 stunt	
50403	1.320
Fits K&B 35, K&B 40, OS 35, OS 40	
50404	1.385
Fits Fox 40, S.T. 35 R/C, S.T. 40 R/C, Webra 40	

### SMALL SERIES

Part No.	Width
50201	1.000
Fits Fox .15, OS .15	
50203	1.135
Fits Fox 15 Schneurle, Fox 19, Fox 25, S.T. 19, S.T. 23, OS 19	

FCX14401	FCX #50401 ENGINE MOUNT	7.50	6.75	321
FCX14402	FCX #50402 ENGINE MOUNT	7.50	6.75	321
FCX14403	FCX #50403 ENGINE MOUNT	7.50	6.75	321
FCX14404	FCX #50404 ENGINE MOUNT	7.50	6.75	321
FCX14601	FCX #50601 ENGINE MOUNT	8.00	7.20	321
FCX14602	FCX #50602 ENGINE MOUNT	8.00	7.20	321
FCX14603	FCX #50603 ENGINE MOUNT	8.00	7.20	321

## DAVE BROWN

These high quality fiber-filled engine mounts are lightweight yet extremely strong. These mounts include alignment marks for easy installation, flat spot on bottom to accommodate a nose gear bearing, and mounting screws. They're available in sizes to fit most engines.

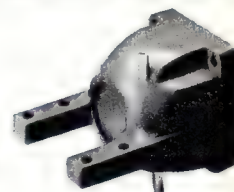
DBP14C05	DAVE BROWN 0405 MOUNT 049/051	1.95	1.85	321
DBP14C10	DAVE BROWN 1011 MOUNT 10	2.25	2.15	321
DBP14C15	DAVE BROWN 1519 MOUNT 15-19	2.35	2.25	321
DBP14C20	DAVE BROWN 2025 MOUNT 20-25	2.45	2.35	321
DBP14C30	DAVE BROWN 3035 MOUNT 30-35	2.65	2.50	321
DBP14C40	DAVE BROWN 4045 MOUNT 40-45	2.75	2.60	321
DBP14C60	DAVE BROWN 5060 MOUNT 50-60	3.25	3.10	321
DBP14C70	DAVE BROWN 6070 MOUNT 60-70	3.25	3.10	321

## COX

### TANK MOUNT

Rugged injection molded Delrin tank mount for Tee Dee .049, .051, and Medallion .049 engines. Cross filler tubes allow inverted flight without spilling fuel. Complete with mounting screws. Capacity is 10cc. Cat. No. 2440

CCX14440	CCX 2440 TANK MT-TC & MED .049	5.00	4.60	321
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TANK MOUNT

## GOLDBERG

Nylon motor mount for Cox plastic plane Kit .049's

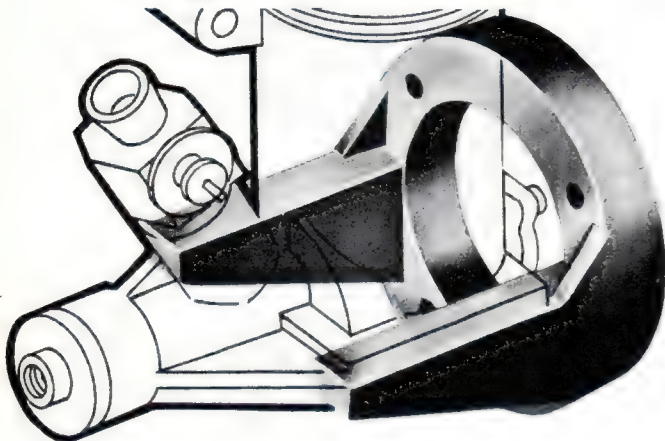


GRG27501	GBG 260 FBI ENGINE BRACKET	.85	.80	321
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## ENGINE MOUNTS

### Glass Filled Nylon Engine Mounts



Molded from high-strength glass-filled nylon, these are the finest engine mounts available. They are light weight and feature accurate alignment, low vibration levels and easy installation. Engine mounting screws are self locking in this material and will not loosen under vibration. They are available in 12 sizes to fit all popular engines.

MOTOR MOUNT	BEARING MOUNT SIZE RANGE	MOUNTING SCREW SIZE	ENGINE SIZE
KM-05	550 to 645	2x3/8	COX 049
KM-09	800 to 890	2x3/8	O.S. 09 COX 09
KM-15	925 to 965	4x1	O.S. 15 O.S. 10 COX 15
KM-15R	1,000 to 1,135	4x1	FOX 15 ENYA 09
KM-19B	1,010 to 1,100	4x1	K&B 14 RR
KM-19	1,080 to 1,180	4x1	ENYA 19 ENYA 15
KM-30	1,140 to 1,220	4x5/8	VECO 19 MERCURY 10 O.S. 19
KM-40R	1,300 to 1,330	4x5/8	O.S. 35 O.S. 30
KM-40	1,265 to 1,325	4x5/8	K&B 40 RR O.S. 40 RR ST 40 RR
KM-60B	1,470 to 1,550	6x7/4	ST 40 FR ST 46 ST 35
KM-60A	1,400 to 1,480	6x7/4	VECO 35 MERCURY 29 MERCURY 35
KM-70	1,620 to 1,700	6x7/4	K&B 35 K&B 40 FR K&B 45
			O.S. 40 FR FOX 36X ENYA 29
			ENYA 35
			KRAFT 61 WEBRA 61 VECO 61
			HP 61 FR ENYA 60
			VECO 50 MERCURY 49 61 MERCURY BLACK
			STREAK 49 61 FOX 59
			O.S. 60 RR ST 60 ROSS 60 RR
			FOX 61 74

## KRAFT

### Aluminum Engine Mounts

These rugged cast aluminum engine mounts withstand the stress of high powered or larger displacement engines. Durable, lightweight, and precision machined, these engine mounts can be drilled to meet your requirements.

The distance between mounting beams is as follows:

P/N 200-163	40F	1.300"
P/N 200-164	40R	1.280"
P/N 200-165	60F	1.500"
P/N 200-166	60R	1.600"
P/N 200-167	80	1.655"
P/N 200-204	Webra 90	1.625"
P/N 200-205	O.S. 90	1.885"
P/N 200-206	60P	1.455"
P/N 200-207	80HD	1.690"
P/N 200-208	1/2AR	Predrilled for
P/N 200-209	1/2AF	Cox .049, .051 Tee Dee.



P/N 200-132

Rugged cast aluminum engine mount, drilled and tapped for Kraft .61 and Webra .61 engines.

KRA14050	KRAFT 200-059	ENGINE MT KM-C5	2.19	2.00	322
KRA14090	KRAFT 200-060	ENGINE MT KM-C9	2.39	2.20	322
KRA14150	KRAFT 200-061	ENGINE MT KM-15	2.49	2.30	322
KRA14155	KRAFT 200-103	ENGINE MT KM-15R	2.79	2.50	322
KRA14190	KRAFT 200-062	ENGINE MT KM-19	2.79	2.50	322
KRA14191	KRAFT 200-063	ENGINE MT KM-19B	2.79	2.50	322
KRA14300	KRAFT 200-064	ENGINE MT KM-30	2.89	2.60	322
KRA14400	KRAFT 200-065	ENGINE MT KM-40	2.98	2.70	322
KRA14401	KRAFT 200-066	ENGINE MT KM-40R	3.29	3.00	322
KRA14601	KRAFT 200-067	ENGINE MT KM-60A	3.29	3.00	322
KRA14602	KRAFT 200-068	ENGINE MT KM-60B	3.29	3.00	322
KRA14700	KRAFT 200-069	ENGINE MT KM-70	3.49	3.20	322

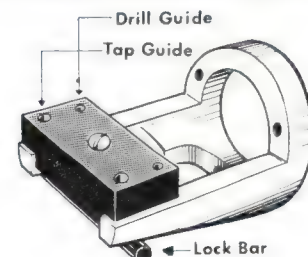
KRA14804	KRAFT 200-208	ALUM MT 049 LONG	2.95	2.80	322
KRA14805	KRAFT 200-209	ALUM MT 049	2.95	2.80	322
KRA14832	KRAFT 200-132	ALUM MT KRA WEB 61	5.95	5.35	322
KRA14863	KRAFT 200-163	ALUM ENG MT .40F	5.49	4.95	322
KRA14864	KRAFT 200-164	ALUM ENG MT .40R	6.49	5.85	322
KRA14865	KRAFT 200-165	ALUM ENG MT .60F	6.98	6.30	322
KRA14866	KRAFT 200-166	ALUM ENG MT .60R	6.98	6.30	322
KRA14867	KRAFT 200-167	ALUM ENG MT .80	6.98	6.30	322
KRA14869	KRAFT 200-207	ALUM MT 80HD	7.95	7.15	322
KRA14875	KRAFT 200-206	ALUM MT K&B PUMP	7.95	7.15	322
KRA14880	KRAFT 200-204	ALUM MT WEBRA 90	11.95	10.45	322
KRA14882	KRAFT 200-205	ALUM MOUNT O.S. 90	11.95	10.45	322

## PRATHER

### Drill Jig-Tap Guide ENGINE TEMPLATE

The Drill Jig has a lock bar on the bottom to hold the Jig in place while you drill and tap your motor mount holes. Two holes in the Jig guides your drill bit. To make sure the holes are drilled straight, two other larger holes guides the tap so tap goes in straight. The drill Jig is made of a case hardened steel block and will last for years. The drill Jig is for metal or wood mounts. Save only one motor mount or engine case and the drill Jig will pay for itself.

No more goofed up motor mounts or egg shaped holes in your engine cases when you use the drill Jig and Tap Guide.



PRA21210	PRATHER 5000	DRILL JIG VECO 61	5.95	5.25	322
PRA21220	PRATHER 5010	DRILL JIG VECO 19	5.95	5.25	322
PRA21230	PRATHER 5020	DRILL JIG K&B 40	5.95	5.25	322
PRA21250	PRATHER 5040	DRILL JIG ST 60BH	5.95	5.25	322
PRA21260	PRATHER 5050	DRILL JIG ST 46	5.95	5.25	322
PRA21300	PRATHER 5090	DRILL JIG CS 40	5.95	5.25	322
PRA21301	PRA. 5091	DRILL JIG CS 40-45SR	5.95	5.25	322
PRA21314	PRA. 5140	DRILL JIG KRA/WEB 61	5.95	5.25	322
PRA21315	PRA. 5150	DRILL JIG CS 60SR	5.95	5.25	322



## Engine mufflers.

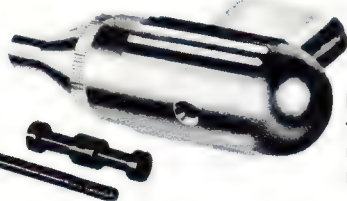
R/C flying is a noisy sport. So noisy, that many clubs have been in danger of losing their flying fields unless something is done. The muffler can help alleviate the problem.

The price of muffling an engine, though, is power, and every muffler causes some loss of power from the engine. The difference between mufflers is the amount of silencing versus the penalty in power they exact.

A flow-through muffler has an opening in the front that goes clear through to become the tailpipe. The main body of the muffler surrounds this tube. The action of the air flowing through the muffler aids the removal of exhaust gases. The gases are mixed with outside air and are cooled. This helps silencing. Even so, a flow-through muffler offers the smallest noise reduction but also with the lowest power loss.

An expansion muffler works because the large expansion chamber allows the exhaust gases to expand and cool off a little before they exit the tailpipe. This also works to muffle. Also important is the size of the tailpipe. The greater the resistance to the flow of exhaust gases out of the muffler, the better the muffling effect . . . but also the greater power loss.

A tuned pipe is the best way to go for noise reduction versus power. Properly used, a pipe will allow a large reduction in noise, with an *increase* in power. This is because the tuned pipe works with the pressure pulses generated by the engine to make it more efficient in allowing the exhaust gases to escape from the engine. It also helps in pulling the fresh charge of fuel and air into the cylinder. For a better discussion of tuned pipes, see some of the modeling magazines of recent months.

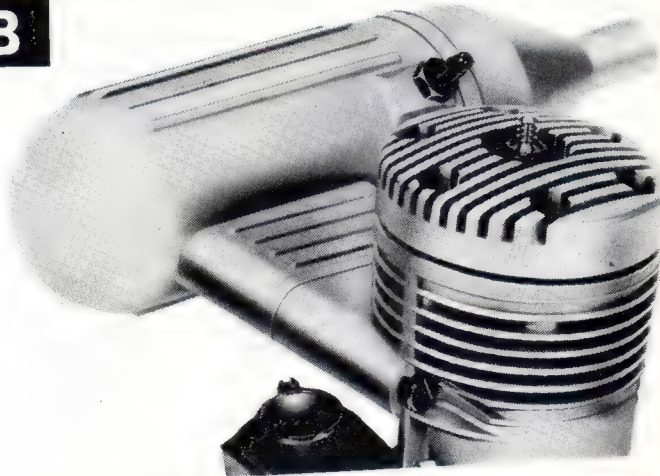


### K & B

Round out your power plant with the K & B muffler designed specifically for the K & B .19R/C. It reduces exhaust noise to conform with standards now mandatory at many fields.

**K&B .19 R/C MUFFLER  
#K&B16507**

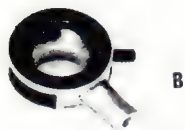
Now available is the new K&B tuned pipe (No. 5156) that fits the K&B 7.5cc (.45) engines. This includes the K&B 7.5cc ducted fan engine (No. 9100) and the 7.5cc competition marine engine (No. 9080). This pipe is a must for the serious competitor. Necessary hardware is included.



This expansion chamber (closed front end) muffler is designed to give maximum power while keeping noise to a minimum. It is rugged in construction, contemporary in design, and is fitted with a pressure top. It fits the K&B .61 engine only & is the same as the original equipment for that engine.

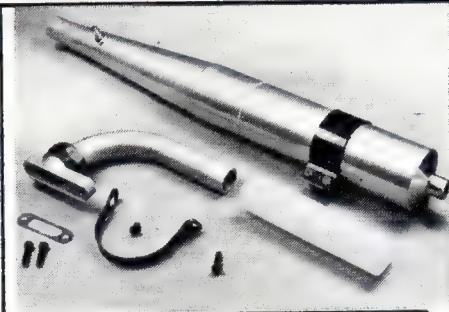
K&B16156	K&B #5156 TUNED PIPE FOR .45	34.95	27.95	323
K&B16507	K&B #6507 MUFFLER K&B .19	7.50	6.00	323
K&B16519	K&B #6552 MUFFLER K&B .61	12.50	10.50	323

### COX



#### MUFFLERS:

Cox mufflers are designed to attenuate objectionable sound levels with minimum loss of power. Available for all Cox engines except the Tee Dee .010 (B).



CCX16004	CCX 2630 MUFFLER FOR .049	4.00	3.80	323
CCX16009	CCX 2640 MUFFLER FOR .09	4.00	3.80	323
CCX16049	CCX 3615 THROTTLE/MUFF 0490051	5.00	4.60	323

These Enya mufflers are specifically designed for Enya engines only. All are expansion type which are very effective silencers.

#### MRC-ENYA TUNED PIPES

Tuned pipes have gained increasing popularity with sport and competition fliers. Increasing RPM's and horsepower they create a resonating frequency that eliminates engine back pressure, allowing engine to increase RPM's and HP. There's one for the 60XTV and one designed to fit the new 40X, 45X and 49X engines.

### ENYA



ENY16C90	ENYA MUFFLER M-90 FOR 09	5.00	4.75	323
ENY16100	ENYA MUFFLER M-100 FOR 15-19	6.50	6.15	323
ENY16200	ENYA MUFFLER M-200 FOR 29-45	8.75	8.30	323
ENY16300	ENYA MUFFLER M-300 FOR 60	11.00	10.45	323
ENY16310	ENYA MUFFLER 300X FOR .60XF	13.50	12.85	323
ENY16540	ENYA TUNED PIPE FOR 40X-49X	60.98	39.95	323
ENY16560	ENYA TUNED PIPE FOR 60X	64.98	42.95	323



# ENGINE MUFFLERS

## THE NEW DU-BRO Universal MUFF-L-AIRE II

MUFFLER LENGTH CAN BE SHORTENED UP TO 1" TO FIT YOUR ENGINE INSTALLATION.

IT LOOKS LIKE AN EXHAUST STACK- BUT IT'S REALLY A MUFFLER!

Completely Universal - 3 muffler sizes fit engines from .09 to .80

Includes pressure fitting

Adjustable stainless steel spring controls back pressure and noise level.

Lightweight aluminum body with tapered end; exits exhaust straight away from plane.

### SUPER CLEAN-SUPER SIMPLE

**SPECIAL K & B .40 MUFFLER**  
ALSO AVAILABLE NOW!  
NO. 240



INCLUDES TWO SPECIAL EXHAUST PORT PLUGS

BLACK ANODIZED BODY. PRESSURE FITTING INCLUDED.

**DU-BRO PRODUCTS, INC.**  
480 BONNER ROAD WAUCONDA, ILLINOIS 60084



### FEATURES

- PRESSURE FITTING IS SIMPLE TO INSTALL - JUST DRILL ONE HOLE (TOP OR BOTTOM) AND LOCK ON WITH NUT
- NO ODD SHAPES OR BULKY CANS TO CONTEND WITH
- EASY INSTALLATION - PERFECT FOR COWLED-IN ENGINES
- NOISE LEVEL AND BACK PRESSURE ARE FACTORY SET FOR BEST OVERALL PERFORMANCE - BUT CAN BE ALTERED AT YOUR OPTION
- SUPER CLEAN!

**MINI-MUFF-L-AIRE II**  
ALSO AVAILABLE



FOR ENGINES .09 to .25

**6" ALUMINUM EXHAUST EXTENSION STOCK**

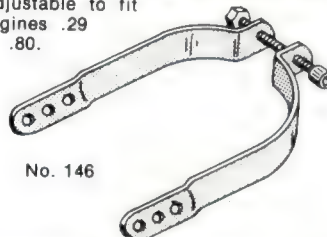
CUSTOM MAKE YOUR OWN MUFFLER EXTENSION

Will fit most engines from .29 to .60 and most mufflers including the Du-Bro Muff-L-Aire. This stock can be cut, drilled, tapped and welded to your own specifications.



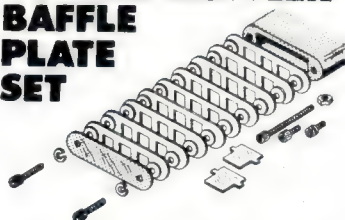
## STEEL MUFFLER STRAPS

These steel, never break, muffler straps can be used with the Du-bro Muff-L-Aire and our new Exhaust Extension Stock. Adjustable to fit engines .29 to .80.



No. 146

## DU-BRO MUFFLER BAFFLE PLATE SET



Complete, replacement Baffle Plates for the Universal Muff-L-Aire and can be used in conjunction with our new Exhaust Extension Stock.

No. 217

# DU-BRO

## MINI-MUFF-L-AIRE

**IDEAL FOR PLANES, BOATS AND CARS.**



No. 144

Designed to fit all engines from .09 to .25. Varying the number of baffle plates controls noise level and back pressure to your desire. Fully adjustable and extremely compact.

# MUFF-L-AIRE

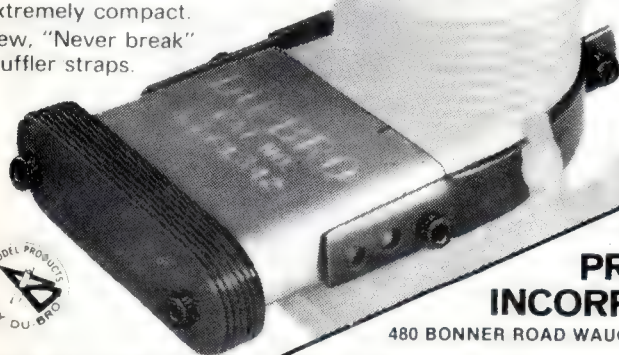
**UNIVERSAL MUFFLER**

**IDEAL FOR PLANES, BOATS, AND CARS.**

Designed for installation on a wide variety of engines from .29 to .60 class. Varying the number of baffle plates controls noise level and back pressure to your desire. Extremely compact.

New, "Never break" muffler straps.

No. 143



**DU-BRO PRODUCTS INCORPORATED**

480 BONNER ROAD WAUCONDA, ILL. 60084

## 6" ALUMINUM EXHAUST EXTENSION STOCK

Will fit most engines from .29 to .80 and most mufflers including the Du-Bro Universal Muff-L-Aire. This stock can be cut, drilled, tapped and welded to your own specifications.

**CUSTOM MAKE YOUR OWN MUFFLER EXTENSION**



**K & B .40 EXHAUST PORT PLUGS**



*New*

## BOLT-ON PRESSURE FITTING

Set includes brass pressure fitting, nut and fibre washer. Can easily be mounted anywhere on muffler by drilling a hole (#28 drill) and bolting it in place or tap smaller hole for 6-32 threads.

NO. 241



DLB16143	DUBRC 143 MUFF-L-AIR .29-.60	7.95	6.95	324
DLB16144	DUBRC 144 MUFF-L-AIR .09-.25	5.95	5.45	324
DLB20213	DUBRC 213 EXHAUST EXTENS 6"	3.95	3.55	324
DUB20217	DUBRC 217 BAFFLE SET	6.95	6.25	324
DLB20235	DUBRC 235 MUFF-L-AIR II .29-.80	8.95	7.95	324
DLB20236	DUBRC 236 MUFF-L-AIR II .09-.25	6.95	6.25	324
DLB20240	DUBRC 240 MUFF-L-AIR II K&B 40	8.95	7.95	324
DLB20241	DUBRC 241 BOLT-CN PRES FITTING	.75	.70	324
DUB20245	DUBRC 245 EXHAUST PLUGS-K&B 40	1.00	.95	324
LUR20246	DUBRL 246 2 AXLES 1 1/4X1/4	2.00	1.40	259



## FOX

### SILENCE IS GOLDEN

Fox offers traditional engine mufflers for each Fox engine. These bolt-on mufflers are expansion type with a closed front end.



#### MUFFLER STOCK NO.

#### FITS

90212	15
90222	19, 25, 29, 36
	35 STUNT
90232	EAGLE 60
90242	15 Schneurle
90252	40 & 45 Snls.
90262	EAGLE II 60

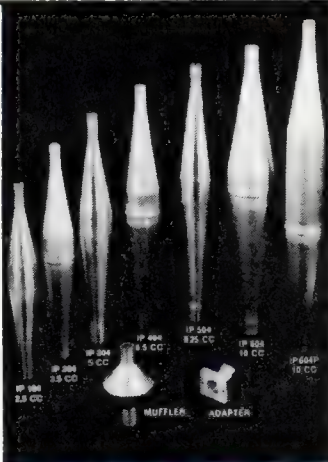
#### 60 TUNED PIPE

Fox has just released a new tuned pipe No. 90303 that fits the Eagle II 60. This pipe is also perfect for other brand .60's as well.

FOX16212	FCX #90212 MUFFLER .15 EXP	6.95	6.25	325
FOX16222	FCX #90222 MUFFLER .19-.36 EXP	8.95	7.95	325
FOX16232	FCX #90232 MUFFLER .60 EXP	10.95	9.60	325
FOX16242	FCX #90242 MUFFLER .15 SCHNURL	7.95	7.15	325
FOX16252	FCX #90252 MUFFLER .40E .45 SCH	9.95	8.95	325
FOX16262	FCX 90262 MUFFLER-EAGLE II	19.95	16.95	325
FOX16303	FCX 90303 TUNED PIPE-EAGLE II	37.50	29.95	325

## INTERNATIONAL PRODUCTS

INT16100	I.P. 100 K&B 40 SHT.BEND ADAPT	24.95	20.60	325
INT16101	I.P. 101 K&B 40 LNG BEND ADAPT	24.95	20.60	325
INT16102	I.P. 102 K&B 61 SHT.BEND ADAPT	24.95	20.60	325
INT16103	I.P. 103 K&B 61 LNG BEND ADAP	24.95	20.60	325
INT16106	I.P. 106 OS40SR SHT.BEND ADAPT	24.95	20.60	325
INT16107	I.P. 107 OS40SR LNG.BEND ADAPT	24.95	20.60	325
INT16108	I.P. 108 OS60SR SHT.BEND ADAPT	24.95	20.60	325
INT16109	I.P. 109 OS60SR LNG.BEND ADAPT	24.95	20.60	325
INT16112	I.P. 112 WEB40S SHT.BEND ADAPT	24.95	20.60	325
INT16116	I.P. 116 WEB61S SHT.BEND ADAPT	24.95	20.60	325
INT16117	I.P. 117 WEB61S LNG.BEND ADAPT	24.95	20.60	325
INT16180	I.P. 180 K&B21 90DEG CAR ADAPT	24.95	20.60	325
INT16190	I.P. 190 K&B21 RACE CAR MUFFLER	28.95	23.90	325
INT16501	I.P. 501 15 TUNED PIPE	22.95	18.95	325
INT16503	I.P. 503 21 TUNED PIPE	23.95	19.75	325
INT16507	I.P. 507 40 TUNED PIPE	25.95	21.40	325
INT16509	I.P. 509 45-49 TUNED PIPE	26.95	22.25	325
INT16511	I.P. 511 61-71 TUNED PIPE	28.95	23.90	325
INT16513	I.P. 513 71-1.20 TUNED PIPE	32.95	26.35	325
INT16517	I.P. 517 40 PATTERN TUNEC PIPE	23.95	19.75	325
INT16518	I.P. 518 60 PATTERN TUNED PIPE	28.95	23.90	325
INT16540	I.P. 540 21 END CLAMP	6.95	6.25	325
INT16541	I.P. 541 21 CENTER CLAMP	7.95	7.15	325
INT16542	I.P. 542 40 END CLAMP	6.95	6.25	325
INT16543	I.P. 543 40 CENTER CLAMP	7.95	7.15	325
INT16544	I.P. 544 45-49 END CLAMP	6.95	6.25	325
INT16545	I.P. 545 45-49 CENTER CLAMP	7.95	7.15	325
INT16546	I.P. 546 61-71 END CLAMP	6.95	6.25	325
INT16547	I.P. 547 61-71 CENTER CLAMP	7.95	7.15	325
INT16560	I.P. 560 SM. MOUNTING BRACKET	3.95	3.65	325
INT16561	I.P. 561 LG. MOUNTING BRACKET	4.95	4.55	325
INT16570	I.P. 570 21 HEADER/SIDE EXHAUST	8.95	8.05	325
INT16571	I.P. 571 40 HEADER/SIDE EXHAUST	9.95	8.95	325
INT16572	I.P. 572 61 HEADER/SIDE EXHAUST	10.95	9.60	325
INT16580	I.P. 580 21 HEADER/REAR EXHAUST	3.95	3.65	325
INT16581	I.P. 581 40 HEADER/REAR EXHAUST	3.95	3.65	325
INT16582	I.P. 582 61 HEADER/REAR EXHAUST	3.95	3.65	325
INT16590	I.P. 590 SMALL STD. COUPLING	1.98	1.90	325
INT16591	I.P. 591 MEDIUM STD. COUPLING	1.98	1.90	325
INT16592	I.P. 592 LARGE STD. COUPLING	1.98	1.90	325
INT16596	I.P. 596 SM REINFORCED COUPLING	3.49	3.20	325
INT16597	I.P. 597 MD REINFORCED COUPLING	3.98	3.80	325
INT16598	I.P. 598 LG REINFORCED COUPLING	3.98	3.80	325
INT16601	I.P. 601 SM NYLON HOSE CLAMP15	1.98	1.90	325
INT16602	I.P. 602 LG NYLON HOSE CLAMP10	1.98	1.90	325



A FULL LINE OF TUNED PIPES, EXHAUST ADAPTORS, EXHAUST ELBOWS, STRAIGHT PIPES, TIE DOWN CLAMPS, COUPLINGS, HOSE CLAMPS AND EVERYTHING ELSE NEEDED FOR TUNED PIPES.

**ADAPTORS:** The adaptors bolt directly to the specific engine they are designed for. For each engine listed you have a choice of configuration. The "SHT. BEND" is shorter than the "LNG. BEND" version and is used for "over the wing" location.

The long bend is longer and is used for "under the wing" position of the pipe. These adaptors come with mounting screws and are listed at left from numbers 100 to 117.

**TUNED PIPE:** The pipes, numbers 501 to 518, are like what's pictured at left. Choose the pipe that fits the engine size you are using.

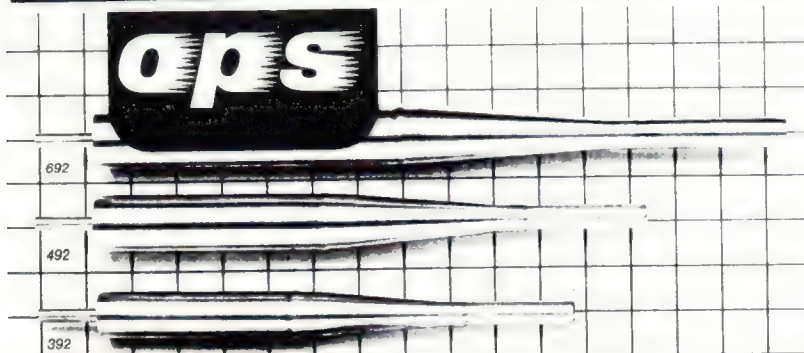
**CLAMPS:** The end and center clamps, numbers 540 to 547, are used to fasten the end and the center of the tuned pipe to your fuselage. These clamps come with a bracket. Brackets are available separately also.

**HEADERS:** The side exhaust headers are nothing more than 90 degree elbows. The rear exhaust headers are simply straight pipe sections a few inches long.

**COUPLINGS:** To connect these above pieces you need couplers. These are pieces of hose that have the proper inside diameter. The standard pack has two pieces, and the reinforced (silicone) pack comes 1 to a pack. The hose clamps keep the couplings in place on whatever they are coupling. 15 per pack on small, 10 per pack large.

## O. P. S.

OPS tuned pipes are the finest quality available anywhere. With the correct adaptor they can be used with any engine brands. The muffled pipes 392, 492, and 692 are quite popular for high performance aircraft use. The 328, 428, and 628 are ideal where high nitro fuel is being burned as in boating competition.



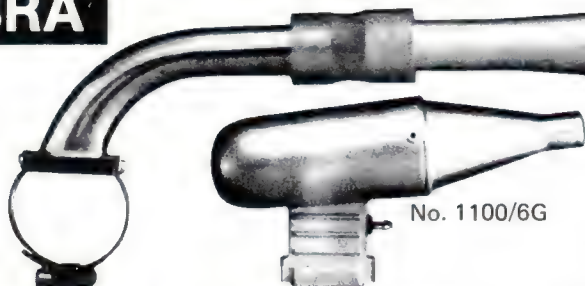
628	CPS #392 MUFFLED PIPE - 3.5CC	24.75	23.50	325
428	CPS #492 MUFFLED PIPE - .40	27.75	26.35	325
328	CPS #692 MUFFLED PIPE - .60	29.00	27.50	325
	CPS #328 NITRC PIPE - 3.5CC	19.50	18.50	325
	CPS #428 NITRC PIPE - .40	20.50	19.50	325
	CPS #628 NITRC PIPE - .60	22.90	21.75	325



# ENGINE MUFFLERS

## WEBRA

No. 1100/7 and No. 1100/17 TUNED PIPE



No. 1100/6G

To obtain even more power from your Webra .61 Speed (No. 1024 RC) and .91 Speed (No. 1037 RC) we have tuned pipes to fit either engine. Everything you need such as adaptor, clamp and coupler, are included with each pipe. Also available is a bolt-on expansion muffler for the .61 Speed.

WEB09C00	WEBRA #1100/7 TUNED PIPE-.61SE	57.80	51.95	326
WEB09C06	WEBRA #1100/6G MUFFLER-1024RC	25.90	23.95	326
WEB09C17	WEBRA #1100/17 TUNED PIPE-.91	72.50	63.95	326

### STANDARD MUFFLERS

S/N Number	Old S/N Number	Strap On	Bolt On	ENGINE APPLICATION
1101A	101	X		Super Tiger 61BH-61ABC-71
1102A	102	X		Super Tiger 35-46-60SR
1103	103	X		Super Tiger 15-15K-22
1104		X		Super Tiger 61X Side Exhaust
1201A	201	X		O.S. Max 61GH-61SR-80
1202A	202	X		O.S. Max 30-35-40
1203	203	X		O.S. Max 40 FSR
1204	204	X		O.S. Max 15-21 25 See S/N #1404 for O.S. 21 Sch.
1301	301	X		K & B (Vaco) 61 Webra 61BH-HB-61
1302	302	X		K & B 35-40
1303	303	X		K & B (Vaco) 19
1401		X		Webra Speed 91
1402	403	X		Webra Speed 61
1403	404	X		Webra Speed 40
1404	402	X		Webra 61BH See S/N #1301
1501	501	X		Enya 61 H & H
1502	504	X		Enya 61 X Sch.
1503	502	X		Enya 29-35-45
1504	503	X		Enya 15-19
1505		X		Enya 40S, 45X, 49X
1601	601	X		Kraft 61
1701	701	X		HP 61
1702	702	X		HP 40
1801	801	X		Fox 78
1802	802	X		Fox Eagle 61 Hawk 61
1803	803	X		Fox 40 Sch-45 Sch.
1804	804	X		Fox 19-25-29-35-36
1901	901	X		Testors McCoy 29-35-40
1902	902	X		Testors McCoy 19

### SPORT SCALE I MUFFLERS

S/N Number	Old S/N Number	Strap On	Bolt On	ENGINE APPLICATION
3101	106	X		Super Tiger 61BH-61ABC-71
3102	107	X		Super Tiger 35-46-61SR-K&B-Vaco 61 Webra 61BH-HB-61
3401		X		Webra Speed 91
3601	603	X		Kraft 61
3701	704	X		HP 61
3306		X		Quadra Upright
3307		X		Quadra Inverted
3103	1003	X		All clamp on type 61 size engines (fits engines such as OS Max-Webra Speed other 60's not listed above)
3106	1004	X		All clamp on type 40 size engines (fits engines such as K&B 40 OS Max Enya others not listed above)
3107		X		All clamp on 15 thru 25 size engines

### SPORT SCALE II MUFFLERS

S/N Number	Old S/N Number	Strap On	Bolt On	ENGINE APPLICATION
4101	108	X		Super Tiger 61BH-61ABC-71
4102	109	X		Super Tiger 35-46-60SR-K&B (Vaco 61 HB61) Webra 61BH
4601	604	X		Kraft 61
4701	705	X		HP 61
4103	1005	X		All clamp on type 61 size engines (fits engines such as OS Max-Webra Speed other 60's not listed above)
4106	1006	X		All clamp on type 40 size engines (fits engines such as OS Max-Enya Others not listed above)

### COMPLETION FLAG MUFFLERS

S/N Number	Old S/N Number	Strap On	Bolt On	ENGINE APPLICATION
2101	104	X		Super Tiger 61BH-61ABC-71
2102	105	X		Super Tiger 35-46-60SR K&B/Vaco 61 Webra 61BH-HB-61
2601	602	X		Kraft 61
2701	703	X		HP 61
2103	1001	X		All clamp on type 61 size engines (fits engines such as OS Max-Webra Speed other 60's not listed above)
2106	1002	X		All clamp on type 29-45 size engines (fits engines such as K&B 40 OS Max Enya other 40's not listed above)

### BOAT EXHAUST EXTENSIONS (NEW ITEMS)

S/N Number	Strap On	Bolt On	STYLE
6105	X		STYLE II
6106	X		STYLE II
6108	X		STYLE S
6109	X		STYLE S
6110	X		STYLE S

## SLIM LINE

Slim Line mufflers and exhaust systems are precision machined from top grade bar stock aluminum (not a casting). Designed for minimum air drag and to fit individual engines with little or no mismatch between engine and muffler. Tangs provide positive, constant positioning. No plates to clean, no adaptors to buy, just mount and use. Power loss is at a minimum because exhaust gases are not expanded more than the volume of the engine port. Standard mufflers extend 2 1/2" from engine and are provided with air fitting and stainless steel strap or screws for easy mounting. Truly, quality muffling systems.

### TUNED PIPE ADAPTORS (NEW ITEMS)

S/N Number	Strap On	Bolt On	ENGINE APPLICATION
5101	X		Super Tiger 61BH-61ABC-71
5102	X		Super Tiger 35-46-61SR-K&B (Vaco 61-HB61) Webra 61BH
5201	X		OS Max 60 FSR
5203	X		OS Max 40 FSR
5205	X		OS Max III Sch. 25-Webra 40 BH
5401	X		Webra Speed 91
5402	X		Webra BH61 See S/N #5102
5403	X		Webra BH40 See S/N #5205
5502	X		Enya 61X Sch.
5601	X		Kraft 61
5701	X		HP 61
5702	X		HP 40
5105	X		All clamp on type 61 size engines (fits engines such as OS Max-Webra Speed other 60's not listed above)
5106	X		All clamp on type 40 size engines (fits engines such as K&B 40 OS Max Webra Enya others not listed above)
5107	X		All clamp on 15 thru 25 size engines (fits engines such as OS Max-K&B-Enya McCoy others not listed above)

### HELICOPTER MUFFLERS

S/N Number	Old S/N Number	Strap On	Bolt On	ENGINE APPLICATION
7101	1201	X		All clamp on type 61 size engines
7102	1202	X		All clamp on type 40 size engines

### ACCESSORIES (NEW ITEMS)

S/N Number	Old S/N Number	Strap On	Bolt On	ENGINE APPLICATION
8001		X		1/4" I.D. Silicon Rubber Tubing 12" Lg. with spring (for use with 1/4" Dia. Tubes 15 size engines)
8002		X		1/4" I.D. Silicon Rubber Tubing 12" Lg. with spring (for use with 1/4" Dia. Tubes 40 & 60 size engines)
8003		X		1/4" I.D. Silicon Rubber Tubing 12" Lg. with spring (for use with 1/4" Dia. Tubes 90 size engines)
8004		X		1/4" I.D. Silicon Rubber Tubing 4" Lg. (for use with 15 size tuned pipe)
8005		X		1/4" I.D. Silicon Rubber Tubing 4" Lg. (for use with 40 size tuned pipe)
8006		X		1/4" I.D. Silicon Rubber Tubing 4" Lg. (for use with 60 size tuned pipe)

### REPLACEMENT CLAMPS

15-90 size SLM16921

MUFFLERS ARE PICTURED AND DESCRIBED ON THE OPPOSITE PAGE

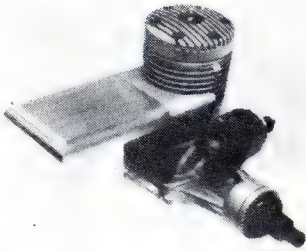
SLM16001	SLM	CCMP MUFF	2105 ALL 60-80	15.95	13.55	326
SLM16002	SLM	CCMP MUFF	2106 ALL 29-45	15.95	13.55	326
SLM16003	SLM	SCALE 1 MUF	3105 ALL 60-80	15.95	13.95	326
SLM16004	SLM	SCALE 1 MUF	3106 ALL 29-45	15.95	13.95	326
SLM16005	SLM	SCALE 2 MUF	4105 ALL 60-80	15.95	13.95	326
SLM16006	SLM	SCALE 2 MUF	4106 ALL 29-45	15.95	13.95	326
SLM16007	SLM	SCALE 1	3107 ALL 15-25	14.95	13.10	326
SLM16010	SLM	SCALE 2	4101 ST 60BH & 71	15.95	13.95	326
SLM16015	SLM	SCALE 2	4102 ST, K&B, HB, WEB	15.95	13.95	326
SLM16020	SLM	SCALE 2	4601 KRAFT 61	15.95	13.95	326
SLM16025	SLM	SCALE 2	4701 HP 61	15.95	13.95	326
SLM16050	SLM	SCALE 1	3101 ST 60BH & 71	15.95	13.95	326
SLM16055	SLM	SCALE 1	3102 ST, K&B, HB, WEB	15.95	13.95	326
SLM16060	SLM	SCALE 1	3601 KRAFT 61	15.95	13.95	326
SLM16065	SLM	SCALE 1	3701 HP 61	15.95	13.95	326
SLM16070	SLM	SCALE 1	3306 QUAC. UPRIGHT	18.95	16.60	326
SLM16071	SLM	SCALE 1	3307 QUAC. INVERTD	18.95	16.60	326
SLM16100	SLM	STD MUFF	1702 HP 40	10.95	9.60	326
SLM16110	SLM	STD MUFF	1701 HP 61	11.95	10.45	326
SLM16111	SLM	CCMP MUFF	2701 HP 61	15.95	13.55	326
SLM16200	SLM	STD MUFF	1403 WEB 40 SCPL	10.95	9.60	326
SLM16205	SLM	STD MUFF	1404 WEB 40 BLKHD	10.95	9.60	326
SLM16220	SLM	STD MUFF	1402 WEB 61 SCPL	11.95	10.45	326
SLM16225	SLM	STD MUFF	1401 WEBRA 91 SNL	11.95	10.45	326
SLM16227	SLM	SCALE 1 MUFF	3401 WEBRA 91	16.95	14.40	326
SLM16300	SLM	STD MUFF	1101A ST60 BLUHD	10.95	9.85	326
SLM16301	SLM	CCMP MUFF	2101 ST60 BLUHD	15.95	13.55	326
SLM16305	SLM	STD MUFF	1103 ST 15, 23	9.95	8.95	326
SLM16310	SLM	STD MUFF	1102A ST 60SR, 46	11.95	10.45	326
SLM16311	SLM	2102 CCMP MUFF	ST, K&B, HB, WEB 61	15.95	13.55	326
SLM16390	SLM	STD MUFF	1303 VECO 19	9.95	8.95	326
SLM16400	SLM	STD MUFF	1302 K&B 35, 40	10.95	9.60	326
SLM16410	SLM	STD MUFF	1301 K&B WEB 61	11.95	10.45	326
SLM16495	SLM	STD MUFF	1204 OS MAX 15-25	9.95	8.95	326
SLM16500	SLM	STD MUFF	1202A OS MAX 30-40	9.95	8.95	326
SLM16503	SLM	STD MUFF	1203 OS MAX 40FSR	10.95	9.60	326
SLM16510	SLM	STD MUFF	1201A OS MAX 60-80	10.95	9.85	326

SLM16580	SLM	STD MUFF	1504 ENYA 15-19	9.95	8.95	326
SLM16600	SLM	STD MUFF	1503 ENYA 29-45	10.95	9.60	326
SLM16610	SLM	STD MUFF	1501 ENYA 60	11.95	10.45	326
SLM16690	SLM	STD MUFF	1804 FOX 19-35	10.95	9.60	326
SLM16700	SLM	STD MUFF	1803 FOX 40-45 SR	10.95	9.60	326
SLM16710	SLM	STD MUFF	1802 FOX 60	11.95	10.45	326
SLM16715	SLM	STD MUFF	1801 FOX 78	11.95	10.45	326
SLM16770	SLM	STD MUFF	1601 KRAFT 61 SCH	11.95	10.45	326
SLM16771	SLM	CCMP MUFF	2601 KRAFT 61 SCH	15.95	13.55	326
SLM16805	SLM	BCAT EXT.	6105 U ALL 61	14.95	12.95	326
SLM16806	SLM	BCAT EXT.	6106 U ALL 29-45	14.95	12.95	326
SLM16808	SLM	BCAT EXT.	6108 S ALL 61	14.95	12.95	326
SLM16809	SLM	BCAT EXT.	6109 S ALL 29-45	14.95	12.95	326
SLM16810	SLM	BCAT EXT.	6110 S ALL 15-25	11.95	10.45	326
SLM16831	PIPE	ADAPTOR	5101 ST 60BH & 71	13.95	12.20	326
SLM16832	PIPE	ADAPTOR	5102 ST, K&B, HB, WEB	13.95	12.20	326
SLM16841	PIPE	ADAPTOR	5201 CS 60FSR	13.95	12.20	326
SLM16843	PIPE	ADAPTOR	5203 CS 40FSR	13.95	12.20	326
SLM16845	PIPE	ADAPTOR	5205 CS25SR, WB40B	13.95	12.20	326
SLM16846	PIPE	ADAPTOR	5401 WEBRA 91	13.95	12.20	326
SLM16847	PIPE	ADAPTOR	5502 ENYA 60XF	13.95	12.20	326
SLM16850	PIPE	ADAPTOR	5601 KRAFT 61	13.95	12.20	326
SLM16852	PIPE	ADAPTOR	5701 HP 61	13.95	12.20	326
SLM16854	PIPE	ADAPTOR	5702 HP 40	13.95	12.20	326
SLM16861	PIPE	ADAPTOR	5105 ALL 61	13.95	12.20	326
SLM16862	PIPE	ADAPTOR	5106 ALL 40	13.95	12.20	326
SLM16863	PIPE	ADAPTOR	5107 ALL 15-25	11.95	10.45	326
SLM16891	7102	HELICOPTER MUFFLER	40	16.95	14.85	326
SLM16892	7101	HELICOPTER MUFFLER	61	16.95	14.85	326
SLM16901	8001	12" TUBING W/SPRING	15	4.95	4.55	326
SLM16902	8002	12" TUBING W/SPRING	40-60	5.95	5.35	326
SLM16903	8003	12" TUBING W/SPRING	90	5.95	5.35	326
SLM16904	8004	4" SILICON TUBING	15	1.95	1.85	326
SLM16905	8005	4" SILICON TUBING	40	1.95	1.85	326
SLM16906	8006	4" SILICON TUBING	60	1.95	1.85	326
SLM16921	SLM	REPLACEMENT CLAMP	15-90	1.95	1.85	326



# ENGINE MUFFLERS

## STANDARD MUFFLERS



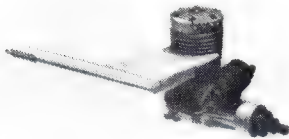
Slim Line standard mufflers are machined from bar stock aluminum. This light weight, low air drag creation is a natural for use in R/C and control flying. RPM loss is at an absolute minimum. The average weight of 1.5 ounces makes our standard muffer one of the lightest available. All mufflers are 2 1/2" long to clear fuselage sides.

Included with each muffer:  
Mounting hardware  
Pressure fitting  
Engine plug

See 1000 Series

## SLIM LINE

## COMPETITION FLAG MUFFLERS

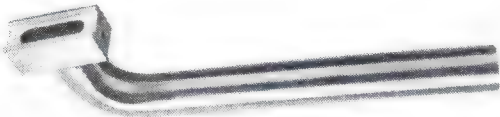


Competition Flag Mufflers are machined and fabricated from bar stock aluminum and thick wall tubing. This slim **one** tube design offers low air drag along with effective muffling that meets FAI sound specifications. Holes direct gases away from fuselage keeping plane cleaner. Average weight is 2.5 ounces. Tube is 6" long, distance from engine port is 1 1/4".

Included with each muffer:  
Mounting hardware  
Pressure fitting  
Engine plugs

See 2000 series

## TUNED PIPE ADAPTORS

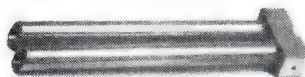


Why not buy a tuned pipe adaptor that fits your engine? Slim Line adaptors are manufactured for **bolt on** or **strap on** type engines. Our assortment of adaptors will fit your needs from 15 thru 60 size tuned pipes. 6" long tube can be cut to desired length or bent slightly to accommodate a wide fuselage. Tube diameter is 1/2" for 15 size engines, 5/8" for 40 size, 3/4" for 60 size engines.

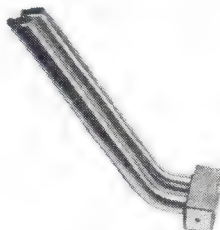
Included with adaptor:  
Mounting hardware  
2" length of silicone rubber tubing

See 5000 series

## BOAT EXHAUST EXTENSIONS



Style S  
6" long tube

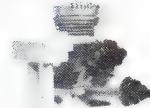


Exhaust extensions are necessary for many boat, car and airplane applications. We offer two styles which are available in **clamp on** type only for engines 15 thru 60 sizes. Style S replaces Sport Scale IIS

Mounting hardware included

See 6000 Series

## SPORT SCALE I MUFFLERS

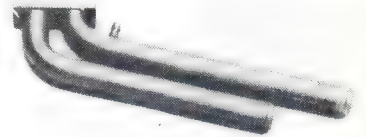


Sport Scale I Mufflers were especially designed for scale type aircraft with a cowl engine. Tubes may be cut to desired length to meet flush or extend below bottom of cowl. Muffer can be inverted for boat or airplane engines. Aluminum tubing can be bent up to approx. 15° for tight installations. By using Slim Line silicon tubing exhaust gases can be routed to exit at scale outlets. Sport Scale I mufflers have (2) 6" long 1/2" Dia. tubes for a maximum gas outlet. This produces minimum power loss and for most 60 engines weight is 2.75 ounces.

Included with each muffer:  
Mounting hardware  
Engine plugs

See 3000 Series

## SPORT SCALE II MUFFLERS

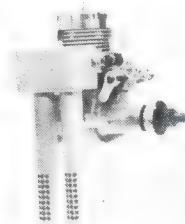


The **In-Line Look** of the Sport Scale II mufflers makes this a natural for sport and pattern flying. This design offers an absolute minimum of power loss at an average weight of 2 ounces. Holes direct gases away from fuselage or toward ground for side mounted engines. Sport Scale II mufflers are machined and fabricated from bar stock aluminum and thick wall tubing.

Included with each muffer:  
Mounting hardware  
Pressure fitting  
Engine plugs

See 4000 series

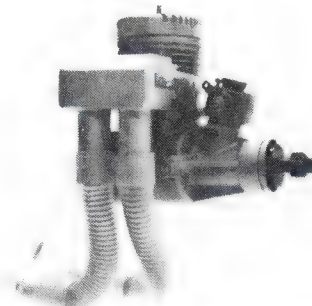
## HELICOPTER MUFFLERS



If one of our airplane style mufflers doesn't fit your helicopter, this one will. Features include expansion chamber as well as muffling exhaust holes. Machined aluminum provides enough mass to draw heat away from engine and let engine run at low RPM loss. Available for 40 and 60 engines. (strap only) See 7000 series.

Included with each muffer:  
Mounting hardware  
Engine plugs

## ACCESSORIES



What more can be said that this picture doesn't illustrate? This accessory takes the scale builder out of jail and gives a free hand to route exhaust gases at scale outlets. Tubing and spring designed to use with any Slim Line Sport Scale I muffer 15 thru 90 sizes. With the use of uncured silicone rubber or RTV no clamps are necessary to seal tubing.

Spring and silicone tubing are 12" long. See 8000 Series.

4" lengths of silicone rubber tubing also available. See 8000 Series.

## REPLACEMENT MUFFLER CLAMPS

Stainless Steel muffer clamps are machined and welded producing a lightweight clamp that holds.





# ENGINE MUFFLERS



**FAI Competition Muffler**

Designed to meet rigid FAI requirements. Reduces noise with almost no detectable power loss. Contest proven at Nats and Internats. Two sizes — medium — .29 to .40 engines & large for .45 to .80 engines.

Medium 202FA; Large 203 FA

## SEMCO



### SUPER FLO THRU

Hours of research, development and testing resulted in this sophisticated super muffler which will reduce noise levels without power loss. The elegant design features a black, anodized body for maximum heat dissipation and polished end caps and exhaust tube. Pressure fitting included.

Small 201FS; Medium 202FS; Large 203FS

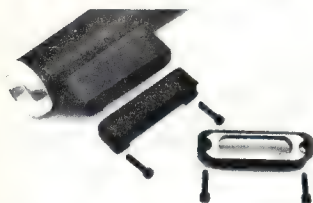


### SUPER EXPANSION

Combining the best of two worlds, this muffler quiets noise effectively with a minimum of power loss. Black anodized with exhaust tube pointed downward to keep exhaust off plane. Pressure fitting included.

Small 201ES; Medium 202ES; Large 203ES

## Adaptors



All of our adaptor-type mufflers use one of these individually machined parts to obtain a precise fit around the exhaust stack of your particular engine. We have adaptors to suit virtually every engine and special adaptors can be made on request. The adaptors come in three sizes: small, medium and large to correspond with their respective muffler size. All adaptors bolt directly to muffler for a positive, neat attachment.

## Bolt-On

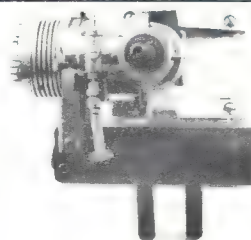
Super flo-thru bolt-on mufflers are available for the Webra .61 and Super-tigre G .60 ABC engines. No adaptor is required with these 2 mufflers.

### Boat & Scale Too Exhaust



The perfect set up for boat car or scale airplane uses standard Semco adaptors. Features top exhaust and pressure fittings. Available in the following sizes:

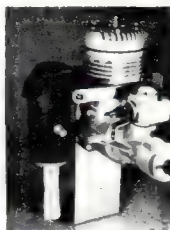
Stock No.	Engine Size
201BCT	Small .15 thru .25
202BCT	Medium .29 thru .40
203BCT	Large .45 thru .80



### Pitts Muffler

Designed especially for aircraft such as Midwest's Pitts Special, this Semco expansion muffler fits neatly inside cowl and has two angled exhaust outlets for maximum scale effect. The black anodized muffler has a low back pressure design, yet is very quiet in operation.

### VERTICAL DOWN EXHAUST



This muffler is designed for upright mounted engines with round or oval cowls. Perfect for Waco and others. Pressure fitting and mounting hardware are standard. Available in two sizes: medium and large.

### FOR ALL SEMCO:

Small fits .15-.25  
Medium fits .20-.40  
Large fits .45-.80

The Pitts muffler (203P) comes in a smaller version known as Pitts Jr. mufflers (202PJ medium and 203 PJ Large) that are perfect for planes such as Stafford Acrosport, Sig Liberty Sport, Sig Skybolt and others.

## ACCESSORIES

### EXHAUST EXTENSIONS

Perfect for scale and pylon racers where muffler is not required. Complete with mounting strap and universal locating slot. Available in three sizes:



**Muffler Extensions**  
(complete with mounting strap)  
Use with Semco or other mufflers. Available in

Medium 402—1/2 and 1"  
Large 403—1/2 and 1"



**Replacement Muffler Straps**  
Direct replacement for Semco muffler can also be used with other brand mufflers. Available in three sizes.

Medium 202RS  
Large 203RS

SEM16208	SEMCO ADAPTOR #8-S FOX 19-25	3.98	3.65	328
SEM16301	SEMCO ADAPTOR #1-M ENYA 29-40	3.98	3.65	328
SEM16302	SEMCC ADAPTOR #2-M OS 30-35-40	3.98	3.65	328
SEM16304	SEMCO ADAPTOR #4-M K&B 35-40	3.98	3.65	328
SEM16000	SEMCC BOLTON FT WEBRA 61 203SW	15.95	12.30	328
SEM16006	SEMCC BOLTON FT STG60ABC 203SG	15.95	12.30	328
SEM16070	SEMCC 202V VERTICAL DOWN EXP.	14.95	12.95	328
SEM16075	SEMCO 203V VERTICAL DOWN EXP.	14.95	12.95	328
SEM16120	SEMCC MUFFLER #201-FS	13.95	10.75	328
SEM16121	SEMCO MUFFLER #202-FS	13.95	10.75	328
SEM16122	SEMCC MUFFLER #203-FS	13.95	10.75	328
SEM16161	SEMCC MUFFLER #201-ES	13.95	10.75	328
SEM16162	SEMCC MUFFLER #202-ES	13.95	10.75	328
SEM16163	SEMCO MUFFLER #203-ES	13.95	10.75	328
SEM16181	SEMCC MUFFLER #201-BCT	13.95	10.75	328
SEM16182	SEMCC MUFFLER #202-BCT	13.95	10.75	328
SEM16183	SEMCC MUFFLER #203-BCT	13.95	10.75	328
SEM16185	SEMCC MUFFLER #202-FA	13.95	10.75	328
SEM16186	SEMCC MUFFLER #203-FA	13.95	10.75	328
SEM16191	SEMCC MUFFLER FCR PITTS #203P	14.95	11.50	328
SEM16192	SEMCC MUFFLER PITTS JR #202PJ	14.95	11.50	328
SEM16193	SEMCC MUFFLER PITTS JR #203PJ	14.95	11.50	328
SEM16201	SEMCC ADAPTOR #1-S ENYA 15-19	3.98	3.65	328
SEM16202	SEMCC ADAPTOR #2-S OS 19-25	3.98	3.65	328
SEM16203	SEMCC ADAPTOR #3-2 ST 19-23	3.98	3.65	328
SEM16206	SEMCC ADAPTOR #6-S VECO 19	3.98	3.65	328

SEM16305	SEMCC ADAPTOR #5-M FOX 29-36	3.98	3.65	328
SEM16316	SEMCC ADAPTOR #16-M OS 40 SNL	3.98	3.65	328
SEM16317	SEMCC ADAPTOR #17-M FOX 40 SNL	3.98	3.65	328
SEM16318	SEMCC ADAPTOR #18-M WEB 40 SNL	3.98	3.65	328
SEM16401	SEMCC ADAPTOR #1-L ENYA 45	3.98	3.65	328
SEM16402	SEMCC ADAPTOR #2-L ENYA 60 111	3.98	3.65	328
SEM16404	SEMCC ADAPTOR #4-L OS 60	3.98	3.65	328
SEM16406	SEMCC ADAPTOR #6-L ST 51-56-60	3.98	3.65	328
SEM16407	SEMCC ADAPTOR #7-L K&B 61 #72	3.98	3.65	328
SEM16413	SEMCC ADAPTOR #13-L WEBRA 61	3.98	3.65	328
SEM16417	SEMCC ADAPTOR #17-L ST G60-71	3.98	3.65	328
SEM16419	SEMCC ADAPTOR #19-L FOX 60	3.98	3.65	328
SEM16421	SEMCC ADAPTOR #21-L WEB 61 SNL	3.98	3.65	328
SEM16424	SEMCC ADAPTOR #24-L HR 61	3.98	3.65	328
SEM16426	SEMCC ADAPTOR #26-L FCX 45 SNL	3.98	3.65	328
SEM16427	SEMCC ADAPTOR #27-L OS 60 SNL	3.98	3.65	328
SEM16502	SEMCC REPLACEMENT STRAP #202RS	2.49	2.35	328
SEM16503	SEMCC REPLACEMENT STRAP #203RS	2.49	2.35	328
SEM16522	SEMCC 402EXT 1/2 IN MUFF EXTN	4.95	4.55	328
SEM16523	SEMCC 402-TEXT 1 IN MUFF EXTN	4.95	4.55	328
SEM16524	SEMCC 403EXT 1/2 IN MUFF EXTN	4.95	4.55	328
SEM16525	SEMCC 403-TEXT 1 IN MUFF EXTN	4.95	4.55	328
SEM16531	SEMCC EXHAUST EXTENSION #201EM	4.95	4.55	328
SEM16532	SEMCC EXHAUST EXTENSION #202EM	4.95	4.55	328
SEM16533	SEMCC EXHAUST EXTENSION #203EM	4.95	4.55	328



## ENGINE MUFFLERS

### O.S. MAX

O.S. Max mufflers are designed for and fit only O.S. Max engines. The 702, 703, and 704 models are strap-on type and the 741, 743, and 744 models are bolt-on. All are expansion type design.

NOTE: H.B. (page 237) tuned pipe No. 7025 and adaptors Nos. 7027 and 7028 fit the O.S. .60 FSR engine.

OS-744

60FSR

OS-743

40SR • 40FSR  
45RSR • 45FSR-H

OS-704

60-80

OS-703

S30R/C-40R/C

OS-702P

15-25

OS-741

10



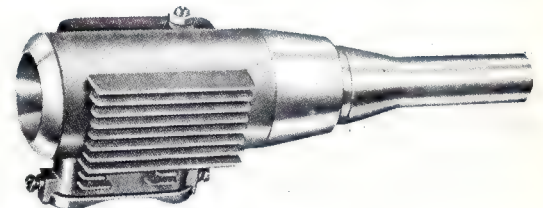
CSM16702	CS MAX MUFFLER #702	15.20,25	14.45	12.30	329
CSM16703	CS MAX MUFFLER #703	30,35,40	18.05	15.35	329
CSM16704	CS MAX MUFFLER #704	60,80	19.35	16.45	329

CSM16741	CS MAX MUFFLER #741 BOLT-ON-10	11.15	9.50	329
CSM16743	CS MAX MUFFLER #743 40SR&FSR	18.75	15.95	329
CSM16744	CS MAX MUFFLER #744 60&90FSR	20.55	17.45	329

### SUPERTIGRE

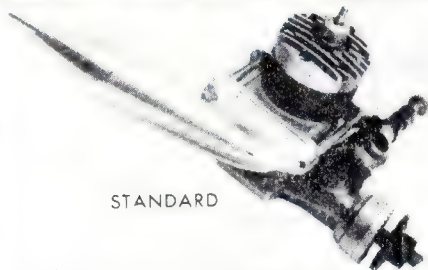
Supertigre has mufflers as well as tuned pipes to fit their popular engines. The tuned pipes to fit the X45, X60SE, and X60RE engines come with couplers. The appropriate tuned pipe adaptor is already included with each of these engines.

STG16C00	STG #1291 TUNED PIPE - X45	23.05	27.95	329
STG16C02	STG #1161 TUNED PIPE - X60 RE	39.75	33.75	329
STG16C04	STG #0730 TUNED PIPE - X60 SE	39.75	33.75	329
STG16C23	SUPERTIGRE MUFFLER FOR 15-25	17.25	14.65	329
STG16C35	SUPERTIGRE MUFFLER FOR 35-46	17.25	14.65	329
STG16C50	SUPERTIGRE MUFFLER FOR ST60RB	17.25	14.65	329
STG16C60	SUPERTIGRE MUFFLER G60-71, X60SE	17.25	14.65	329



### TATONE

World Famous  
"PEACE PIPE" MUFFLERS



STANDARD

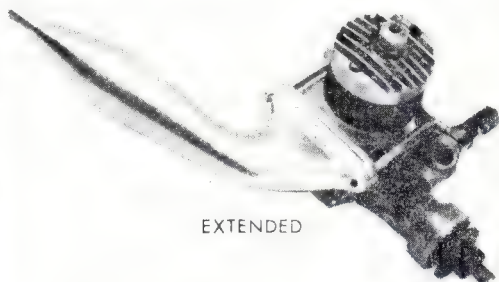
STANDARD

No. 102 (.29-.40)

EXTENDED

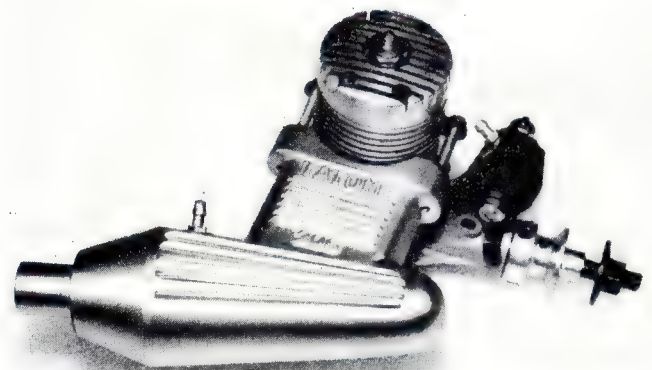
No. 102L (.29-.40)

The "PEACE PIPE" mufflers are made to fit without any modifications. One muffler can be interchanged with many engines. Easy to attach and angled to keep the fuselage cleaner. Streamline, flow out design is preferred by many leading experts.



EXTENDED

This new "PEACE PIPE" was extended to provide 1" of clearance between the exhaust stack and and muffler. Designed to fit most wide fuselages and cowlings, an all time favorite.



#### K&B .40 RC MUFFLER

With the K&B .40 being such a popular engine and the fact that K&B has never made a muffler for it, there are always people looking for a good muffler for this particular engine. Tatone now has one and it looks good. Noise is cut by 10 to 12 decibels, but power loss is negligible. The header piece is long enough to get the muffler body away from the model and the exhaust stinger is angled slightly away from the engine so that exhaust is directed away from the fuselage. Most importantly, the muffler bolts directly up to the K&B .40's without the need for adaptors and such. Even the old problem of plugging the holes in the exhaust stack (where the rotating exhaust restrictor is on non-muffled engines) is gone, as the Tatone mount is machined to cover these holes.

#### MANIFOLDS FOR ENCLOSED COWLS

##### EM-S INVERTED MANIFOLD

Specially designed for Sig's Ryan STA and similar type models using tight cowl and inverted engines. Twin exhaust tubes exit to bottom of cowl.



Each manifold fits any .45-.80 size engines and includes two lengths of special rubber exhaust tubing, two types of mounting straps and hardened stainless steel screws.



##### EM-S8 DOWN EXHAUST MANIFOLD



##### EM-SS SIDE EXHAUST MANIFOLD

TAT16102	TATONE #102 PEACE PIPE 29-40	13.00	11.35	329
TAT16202	TATONE #102L PEACE PIPE 29-40	14.00	12.25	329
TAT16401	TATONE EM-S INVERTED MANIFOLD	14.00	12.25	329
TAT16402	TATONE EM-SS MANIFOLD-SIDE EXH	15.00	12.75	329
TAT16404	TATONE EM-SB MANIFOLD-DOWN EXH	14.00	12.25	329
TAT16406	TATONE #306 MUFFLER K&B 40	16.50	13.95	329



## FUEL PUMPS, TANKS, FILTERS, ETC.

The fuel tank is often underrated when it is being chosen for a plane. This is amazing, especially since it is critical to the proper performance of the engine. There is a proper size and position of tank for each different engine. The tank commonly used for each engine is defined as a size, only. The shape is really not critical, unless restrictions of the airplane require a special tank shape. What is important is the fact that the tank is neither too large nor too small for the engine.

The recommended tank sizes are:

.049: 1 or 2 ounces.

.09-.15: 2-4 ounces.

.19-.25: 4 ounces.

.29-.35: 6-8 ounces.

.40-.45: 8-10 ounces.

.60: 12-16 ounces

Larger than .60: as large as you can fit into your plane.

The tank sizes listed are those that have been used with most planes and engines, and do work. Some installations may not allow for as large a tank as you would like, so you would have to use what will fit.

Generally, you can tell if the tank is too large if the engine tends to lean out excessively when it starts to run through the latter part of the fuel load . . . provided the tank is located properly. A too-small tank will generally give you a shorter engine run than you would normally expect from that size engine.

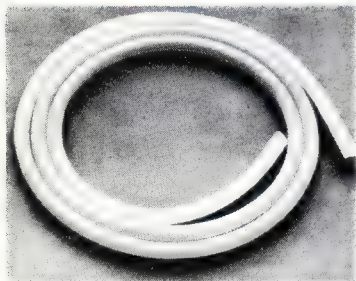
The location of the fuel tank is critical, also . . . unless you are using an on-board fuel pump. You can tell that the tank is located properly when it is located as close to the engine as possible, and the centerline of the tank passes through the center of the carburetor, or no more than  $\frac{1}{2}$ " below the center of the carburetor.

Lately, we have seen the development of efficient fuel pumps that allow you to place the fuel tank anywhere you desire in the plane, yet they still allow the engine to draw the fuel it requires for efficient running. The Perry pumps are bolted directly to the crankcase, and used the pulsating pressure in the crankcase to drive a diaphragm pump. This pump is quite powerful and requires that the Perry pressure carburetor is used with it. It cannot be used with a regular carb. See below for details.

The Robart pumps are in-line pumps, and use pressure taken from the crankcase via a tap. This pump can be used with a regular carburetor, and can be adjusted to work with almost any carb.

The other types of fuel pumps we carry are designed for fueling the plane from the can of fuel carried on the field box. These pumps can be either manual or electric.

## AEROTREND



Aerotrend "Blue Line" tubing is thick, strong, extremely flexible, and highly heat resistant. It comes in 3 foot packages in 4 different sizes. Inside diameter sizes are: Small  $\frac{5}{64}$ ", Medium  $\frac{3}{32}$ ", Large  $\frac{1}{8}$ ", and Extra Large is  $\frac{5}{32}$ ". This is very high quality fuel tubing—try it once and you'll never use any other kind.



Aerotrend's new "Squeezeme" fuel bulbs are heavy duty in every respect and have a lifetime guarantee to back that up. Available in 2, 4, or 8 ounce sizes, these fuel bulbs are specially formulated to eliminate internal flaking and deterioration. They feature all brass fittings, "Blue Line" fuel line, and "End-of-the-Line", which brings us to the "End-of-the-Line" itself. It (pictured above right) is made of bar stock aluminum and is used to join two dissimilar pieces of fuel line together, simplify fuel tank installation, connect pump line to tank, etc. Great for fuel pump tubing ends.

AER54020	AEROTREND FUEL BULB 2 OZ.	3.95	3.65	330
AER54040	AEROTREND FUEL BULB 4 OZ.	4.95	4.55	330
AER54080	AEROTREND FUEL BULB 8 OZ.	5.95	5.35	330
AER55100	AEROTREND TUBING 3 FT.—SMALL	1.89	1.80	330
AER55110	AEROTREND TUBING 3 FT.—MEDIUM	1.89	1.80	330
AER55120	AEROTREND TUBING 3 FT.—LARGE	1.89	1.80	330
AER55130	AEROTREND TUBING 3 FT.—X-LARGE	1.89	1.80	330
AER59000	AEROTREND END OF THE LINE STC.	.98	.95	330

## COX

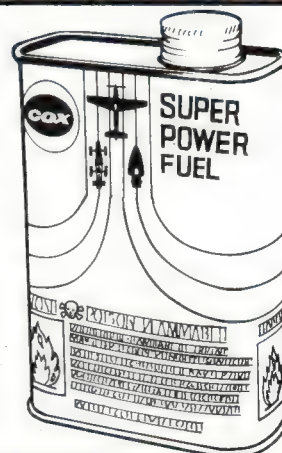
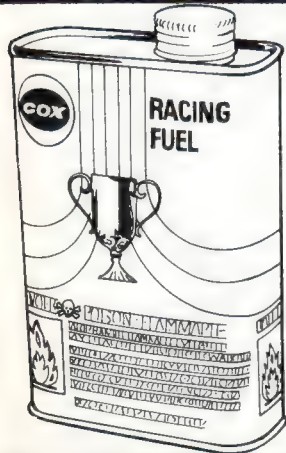
### NEW SUPER POWER FUEL

Both Flight Power and Glow Power fuels have been discontinued and replaced with all-purpose Super Power Fuel. This is an advanced fuel with 15% nitromethane—a more powerful formula for maximum performance and ease of starting. Features Super Lube, an exotic synthetic additive with premium lubricating properties for minimum wear.

### RACING FUEL

Contains 3 times the nitro content of ordinary fuels. Specially formulated for competition use and high speed engines. Not recommended for Cox ready-to-run models. Cox Racing Fuel — for the performance model enthusiast.

CCX51070	CCX 510 PT. RACING FUEL	5.50	4.95	330
CCX51551	CCX 551 PT. SUPER POWER FUEL	4.95	4.55	330
CCX51552	CCX 552 CT. SUPER POWER FUEL	7.95	7.15	330





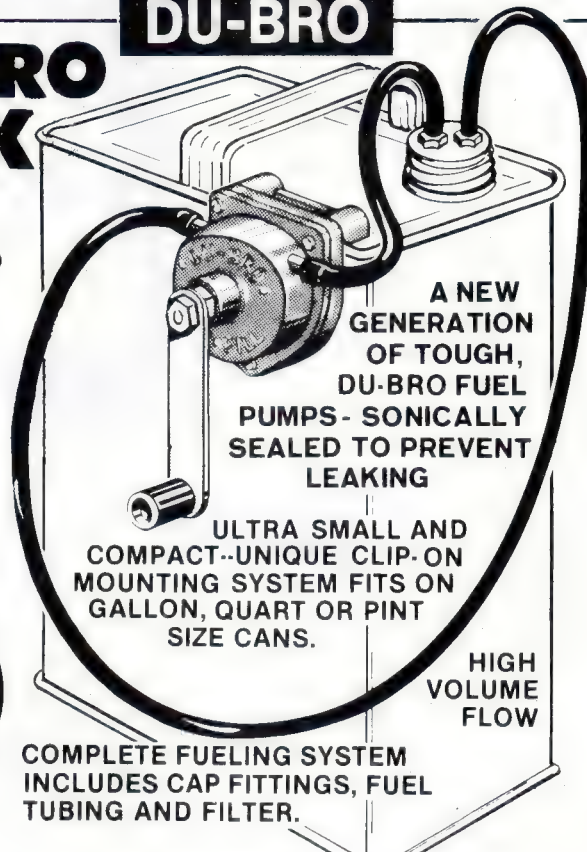
# **DU-BRO KWIK FILL** FUEL PUMP PUMPS IN AND OUT HAND OPERATED

NO. 191-  
BLACK PUMP -  
FOR GLO-FUELS

Release date  
has not been  
announced.

**NEW!**  
CAT. NO. 250-  
RED PUMP -  
FOR GAS/OIL  
MIXTURES

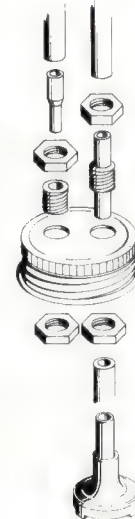
**DU-BRO**



## **FUEL CAN CAP FITTINGS**

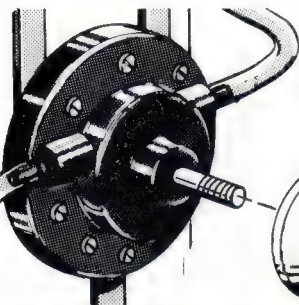
**FOR  
QUICK  
AND  
EASY  
FUEL  
PUMP  
HOOK-  
UPS**

NO. 192



Universal cap fittings and new nylon filter for any standard 1-1/4", or larger, fuel can cap. 8 piece set includes 4, 1/4" nuts, 3 top quality brass fittings and fuel filter. Accepts large size fuel tubing.

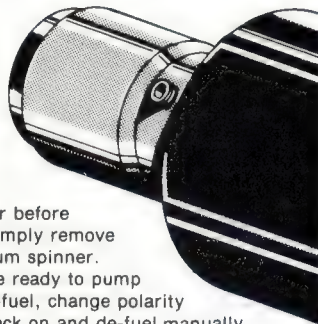
## **DU-BRO KWIK-PUMP SPINNER**



**Convert your Kwik-Fill Fuel Pump to Electric Starter Operation**

no.  
211

Pump fuel faster and easier than ever before with the new Kwik-Pump spinner. Simply remove the handle and screw on the aluminum spinner. Lock it in place with a nut and you're ready to pump fuel with your electric starter. To de-fuel, change polarity to your starter or wind the handle back on and de-fuel manually. It's as easy as that!!



## **TANK FILTER**

Combination weight and filter. Designed to fit all clunk tanks. Made of sintered bronze to give the ultimate in filtering.

No. 161



## **FUEL TUBING**



## **THE FINAL FILTER**



ONLY 1 1/4" LONG  
FILTERS IN EITHER DIRECTION

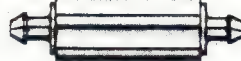


CLEAN BY BACK FLUSHING.

The ultimate, in-line fuel filter with twice as much fuel filtering capacity as most filters now available. The extremely fine 130 micron polyester screen filters out even the smallest particles, yet, because of the large filtering area, it does not restrict fuel flow. Proven 20% better than wire screen equivalents, this classy looking aluminum filter should be used between engine and tank or on your fuel can line.

NO. 162

ACTUAL SIZE



DUB20161	DUBRO 161 R/C TANK FILTER	1.15	1.10	331
DUB20162	DUBRO 162 FINAL FILTER	1.75	1.65	331
DUB20191	DUBRO 191 KWIK FILL FUEL PUMP	10.95	7.95	331
DUB20192	DUBRO 192 FUEL CAN FITTINGS	1.75	1.65	331
DUB20211	DUBRO 211 KWIK-PUMP SPINNER	2.95	2.80	331
DUB20224	DUBRO 224 SM. NEOPRENE LINE-2'	.60	.55	331
DUB20225	DUBRO 225 MD. NEOPRENE LINE-2'	.80	.75	331
DUB20226	DUBRO 226 LG. NEOPRENE LINE-2'	.90	.85	331



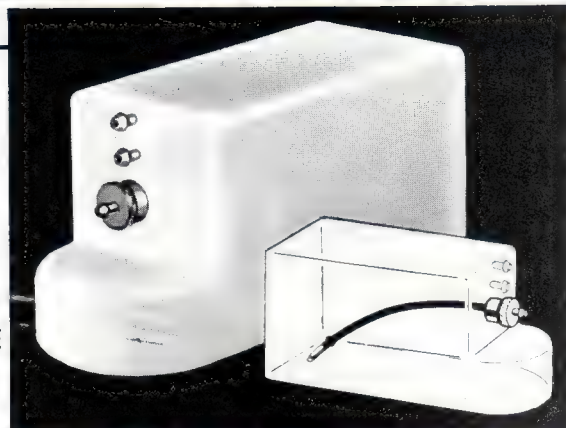
# FUEL PUMPS, TANKS, FILTERS, ETC.

THE FINEST TANKS FOR RADIO CONTROL ARE NOW IN PRODUCTION ON OUR OWN BLOW MOLDING MACHINES AND ARE READILY AVAILABLE.

- EXCLUSIVELY DESIGNED FOR RADIO CONTROL
- PROTRUDING FRONT ELIMINATES PINCHED LINES
- EASILY REMOVABLE PICKUP TUBE
- NON-SLIP NIPPLES
- WON'T SPLIT • WON'T LEAK

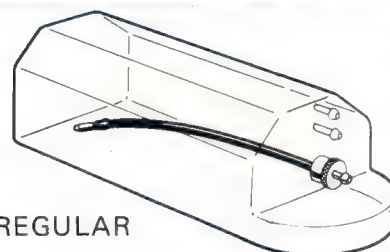
CAPACITY	OUTSIDE DIMENSIONS			PART NO.
	HEIGHT	WIDTH	LENGTH	
4-ounce	1.875	1.625	3.456	200-084
6-ounce	2.062	1.687	4.406	200-071
8-ounce	2.250	1.875	4.681	200-070
11-ounce	2.375	2.000	4.875	200-026
13-ounce	2.625	2.250	5.125	200-027

SLIMLINE



CAPACITY	OUTSIDE DIMENSIONS			PART NO.
	HEIGHT	WIDTH	LENGTH	
4-ounce	1.580	1.750	3.800	200-148
8-ounce	1.875	2.250	4.420	200-147
12-ounce	2.073	2.375	6.504	200-085
16-ounce	2.850	2.750	5.400	200-146

**KRAFT**



REGULAR

For maximum engine reliability a fuel filter is essential. It prevents contaminants from clogging the carburetor needle valve assembly.  
Part No. 200-028



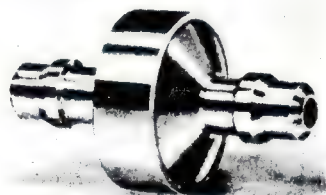
- SPECIFICALLY DESIGNED TO BE INSTALLED ABOVE RETRACTABLE LANDING GEAR
- SAME EXCELLENT FEATURES AS OUR OTHER TANKS

KRA52028	KRAFT 200-028 FUEL FILTER	1.49	1.40	332
KRA53004	KRAFT 200-084 FUEL TANK 4 OZ	3.49	3.20	332
KRA53006	KRAFT 200-071 FUEL TANK 6 OZ	3.79	3.50	332
KRA53008	KRAFT 200-070 FUEL TANK 8 OZ	3.79	3.50	332
KRA53011	KRAFT 200-026 FUEL TANK 11 OZ	3.95	3.65	332

KRA53013	KRAFT 200-027 FUEL TANK 13 OZ	3.95	3.65	332
KRA53104	KRAFT 200-148 SLIM TANK 4 OZ	3.49	3.20	332
KRA53108	KRAFT 200-147 SLIM TANK 8 OZ	3.79	3.50	332
KRA53112	KRAFT 200-085 SLIM TANK 12 OZ	3.95	3.65	332
KRA53116	KRAFT 200-146 SLIM TANK 16 OZ	3.95	3.65	332

**PERRY**

High quality polypropylene filter in aluminum housing is sealed in to prevent leakage. Will not corrode. Prevents any foreign matter in fuel from entering carburetor. Protects engine.



PERS2100 PERRY FUEL FILTER

1.59 1.45 332

**ROCKET CITY**

Will not harden or deteriorate. 3/32" inside diameter tubing for .19 size engines and larger. Good value!

**30 FOOT SPOOL SILICONE FUEL TUBING**

RCS55049	ROCKET CITY #49 TUBE SILI 30FT	15.00	12.75	332
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**FOX**



**FOX FUEL FILTERS**

For dependable tank after tank engine runs our two piece fuel filters have a fine mesh screen to collect solid particles. Disassemble for easy cleaning.

**LARGE**  
NO. 90702  
**SMALL**  
NO. 90701

FGX52701	FOX #90701 SMALL FUEL FILTER	1.98	1.85	332
FGX52702	FOX #90702 LARGE FUEL FILTER	1.98	1.85	332

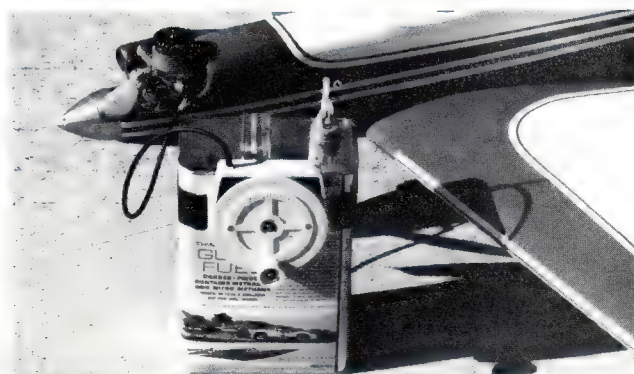
**DAVE BROWN**

**SIX SHOOTER**

NOW WITH AN IMPROVED BELT FEATURING A VELCRO FASTENER FOR EASIER MORE SECURE MOUNTING  
An industrial quality, high volume, hand operated rotary pump designed specifically for model use. It features a silicone pumping element for fuel resistance - it has no seals or valves to leak or wear out and operationally is self priming and will stop and reverse almost instantly. Almost indestructible and guaranteed for one year!

NOW AVAILABLE IN A GASOLINE VERSION

DBP54401	DAVE BROWN SIX-SHOOTER - GLOW	10.95	8.95	330
DBP54402	DAVE BROWN SIX-SHOOTER - GAS	10.95	8.95	330





## NEW

### Mark IV Super Pump (Super Pump with built-in Auto Mix)

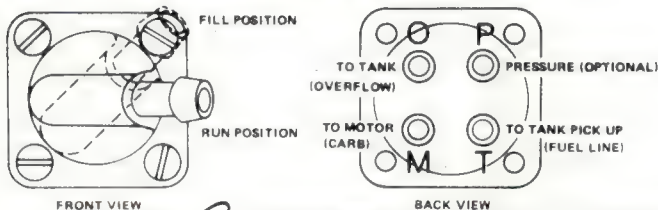


Robart has now upgraded its fuel pump systems to include the Super Pump MK IV. This is a combination Auto-Mix and Super Pump in a package no larger than the Super Pump. In one package you have engine demand fuel pumping operating on pulses from the crankcase and excess fuel return, that senses fuel demand at the carburetor and delivers the amount in excess of demand back to the fuel tank.

## NEW Ultra Fueler

#### Another Robart Exclusive

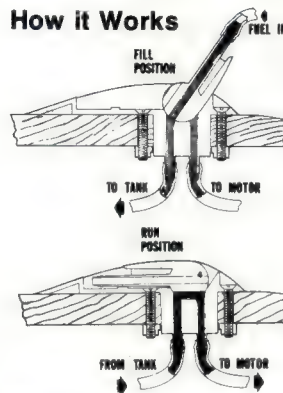
- EXTERNAL FILL FUNCTION
- OVERFLOW INDICATION OVERBOARD
- 4 VALVES—FOR BOTH FUEL LINE AND VENT / PRESSURE LINE
- REPLACEABLE 'O' RING SEALS
- SMALL SIZE
- EXCELLENT PYLON, PATTERN OR DUCTED FAN FILLER—SHUT-OFF—PRESSURE SWITCH



Robart now has 7 different fuel system devices in their line. Following is a list:

- |         |   |
|---------|---|
| No. 200 | Gasoline Super Pump (gasoline fuels)                                      |
| No. 201 | Super Pump MK III (pump only—new body)                                    |
| No. 202 | 1/2 A Super Pump (for .02 to .15 engines)                                 |
| No. 203 | Hi-Volume Super Pump (for high-performance engines or .90 and up engines) |
| No. 207 | Auto-Mix (use with any pump)  |
| No. 208 | Super Pump MK IV (Pump/Auto-Mix)  |
| No. 209 | Super Pump MK IV Gasoline (Pump/Auto-Mix)                                 |

#### How it Works

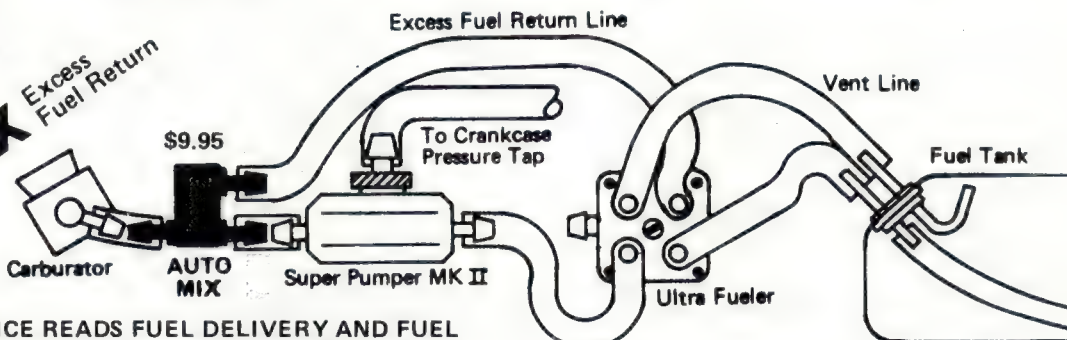


#### SUPER FUELER #ROB50000



Super Fueler automatically connects your fuel source to the fuel tank for refueling, then re-connects the tank to the engine. All this is done without pulling the fuel line off the engine. To stop your engine with a dry crankcase simply open the Super Fueler. Use an extra Super Fueler on a pylon ship to cut off pressure during start. Super Fueler is ideal for tightly cowled engines where fueling access is difficult.

## NEW Auto Mix



- DEVICE READS FUEL DELIVERY AND FUEL REQUIREMENT AND ROUTS EXCESS FUEL BACK TO TANK VIA THE OVERFLOW LINE
- INTENDED FOR CRITICAL CARB/PUMP APPLICATIONS TO SIMPLIFY ADJUSTMENT
- AUTO MIX WORKS ON ALL DISPLACEMENT TYPE FUEL PUMPS

RCB50000	ROBART SUPER FUELER	2.49	2.35	333
RCB51000	ROBART ULTRA FUELER	3.98	3.60	333
RCB54005	ROBART #201 SUPER PUMP MK III	17.95	14.35	333
RCB54100	ROBART #202 1/2 A SUPER PUMP	15.95	12.75	333
RCB54200	ROBART #200 GAS SUPER PUMP	19.95	15.95	333
RCB54300	ROBART #203 HI-VOLUME S. PUMP	24.95	19.95	333
RCB54500	ROBART #208 SUPER PUMP MK IV	24.95	19.95	333
RCB54509	ROBART #209 S. PUMP MK IV-GAS	28.95	22.95	333
RCB59000	ROBART #207 AUTO MIX	9.95	7.95	333



# FUEL PUMPS, TANKS, FILTERS, ETC.

## SONIC-TRONICS

## Kleen-Fil

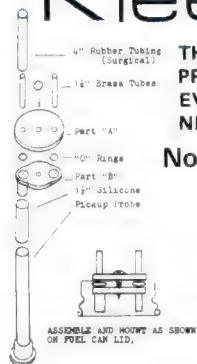
**NEW**

# MARK V

**ELECTRIC FUEL PUMP**



Introducing the most advanced design electric fuel pump ever available. The combination of a new high performance motor and new molded pump unit will fill the largest of fuel tanks quickly, and requires less than half the input current of other electric fuel pumps. Many new features, including recessed fuel outlets, internal printed circuit board for solid control switch functions, plus nylon molded case. Available in two models:  
 —No. 250, 2 to 6 volt operation  
 —No. 1250, 7.5 to 12 volt operation

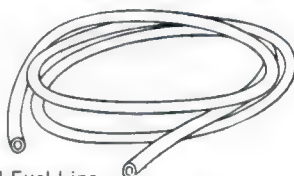


**THE FILTERED FUEL PROBE ASSEMBLY — EVERY FUEL CAN NEEDS IT!**

**No. 253**

Kleen-Fil keeps dirt out of your fuel and the can stays closed at all times to prevent evaporation and spilling.

## Fuel Line



**Surgical Fuel Line**  
 Small, 2 ft. per pkg. No. 220  
 Large, 2 ft. per pkg. No. 221  
 Super, 2 ft. per pkg. No. 222

**Special Silicone Fuel Line Kit**  
 3 ft. of 5/32" ID Tubing & probe No. 251  
 (for use with electric pumps)

**Silicone Fuel Line**  
 Small, 2 ft. per pkg. No. 225  
 Large, 2 ft. per pkg. No. 226  
 Large, 30 ft. roll No. 226R

**Super Silicone "X" Fuel Line**  
 Small, 2 ft. per pkg. No. 228  
 Large, 2 ft. per pkg. No. 229



**BIG SHOT FUEL BULB**

The bulb may be used as shown or mounted to any pint, quart, or gallon fuel can lid with the adapter included. Holds 8 oz. No. 252.

**NEW**

# SIDEWINDER

## HAND PUMP



The "Best in High Performance Hand Operated Fuel Pumps is available to you Now!  
 Made of High Strength Nylon, Pump both Fills & Empties your tank plus it Hangs on the side of your fuel can when not in use.

**Stk. No# 160**

STR54160	STR #160 SIDEWINDER HAND PUMP	10.95	8.95	334
STR54249	SONICTRONICS #1250 12V FUEL PUMP	16.95	14.40	334
STR54250	SONICTRONICS #250 FUEL PUMP	16.95	14.40	334
STR54252	SONICTRONICS #252 BIG SHOT 8OZ	3.99	3.65	334
STR54253	SONICTRONICS #253 KLEEN-FIL	1.95	1.85	334
STR55220	SONICTRONICS #220 SURGICAL SM.	.75	.70	334
STR55221	SONICTRONICS #221 SURGICAL LG.	.85	.80	334
STR55222	SONICTRONICS #222 SURGICAL SUP	.95	.90	334
STR55225	SONICTRONICS #225 SILICONE SM.	.90	.85	334
STR55226	SONICTRONICS #226 SILICONE LG.	.99	.95	334
STR55228	STR #228 GOLD SILICONE SM.—2FT	1.25	1.20	334
STR55229	STR #229 GOLD SILICONE LG.—2FT	1.39	1.30	334
STR55251	SONICTRONICS #251 FUELLINE KIT	1.99	1.90	334
STR55226	SONICTRONICS #226R 30 ROLL LG	12.95	10.95	334

Newer, more sophisticated carburetors and pumps are very sensitive to fine particles that can get through most filters. But not the Crap Trap. Here's why:

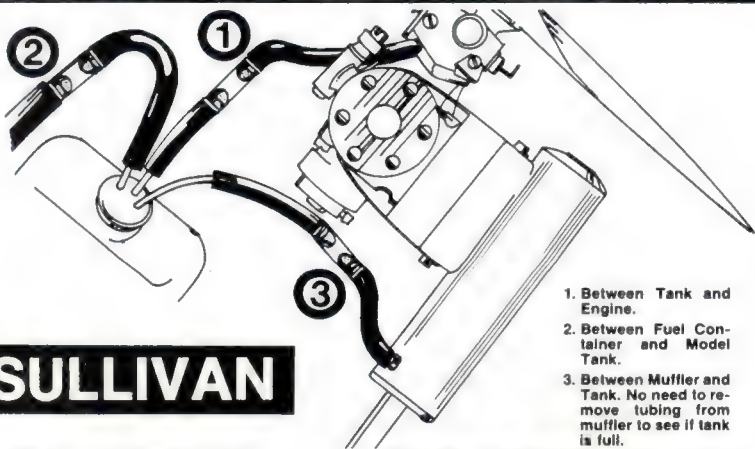
- **DOUBLE FILTRATION**—Includes two separate filters, a 100 mesh (.007 opening) and a 120 mesh (.004 opening).
- **MORE FILTER AREA**—Both filters are cup-shaped to greatly increase filter capacity.
- **COLOR CODED**—Fuel must go through larger (silver) mesh first to filter out larger particles and then through the smaller (bronze) mesh. This is a must.
- **WATCH IT WORK**—Filters are encased in see-through tubing.
- **CAN TAKE THE HEAT**—The extruded Teflon casing can handle temperatures up to 600°F.

Between tank and engine, insist on  
 Crap Trap CT-1 ..

Actually less than an ordinary single filter.

Between fuel container and tank, insist on  
 Crap Trap CT-P ..

Includes the larger fittings you need for this use.



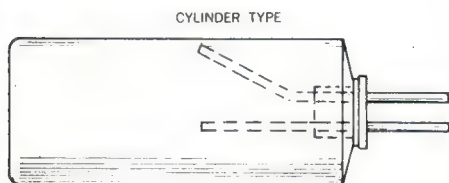
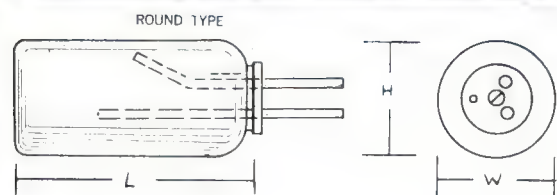
**SULLIVAN**

**THE ULTIMATE... A TRUE FILTER SYSTEM**

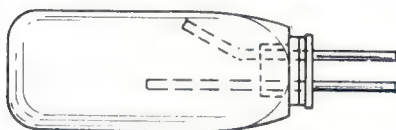
SUL52100	SULLIVAN CT-1 CRAP TRAP FILTER	1.15	1.10	334
SUL52110	SULLIVAN CT-P CRAP TRAP-PUMP	1.25	1.20	334



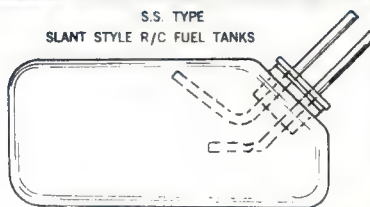
# FUEL PUMPS, TANKS, FILTERS, ETC.



RST TYPE  
SPECIAL SHAPE: ROUND, SQUARE, TAPERED TANK



S.S. TYPE  
SLANT STYLE R/C FUEL TANKS

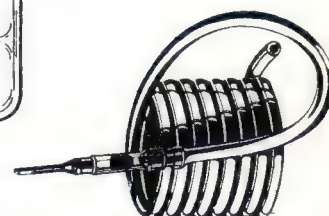


Tank  
Stopper  
Assembly



These parts kits are complete except for the tank. Include special rubber stopper and the two nylon compression spacers, and three pieces of brass tubing, a special self tap screw and a CW 25 clunk weight.

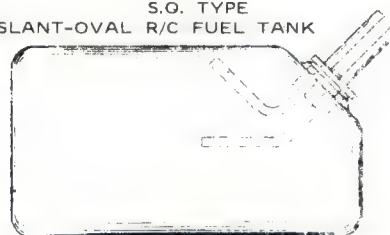
FILTERED  
FUELER



Get the double filtration performance of the Sullivan 'Crap Trap' when you fuel-up. Complete with 4' of Silicone Tubing which will not collapse when de-fueling.

## SULLIVAN

S.O. TYPE  
SLANT-OVAL R/C FUEL TANK



NEV-R-LEAK FUEL TANKS (STANDARD)

Round Type

R-1	1 oz. - 1-1/4" O.D. x 2-1/8" Long
R-2	2 oz. - 1-3/8" O.D. x 2-3/4" Long
R-4	4 oz. - 1-3/4" O.D. x 3-5/8" Long
R-6	6 oz. - 2" O.D. x 4" Long
R-8	8 oz. - 2-5/16" O.D. x 4-3/16" Long
R-10	10 oz. - 2-5/16" O.D. x 4-7/8" Long
R-12	12 oz. - 1-1/2" O.D. x 5-1/2" Long
R-16	16 oz. - 3" O.D. x 4-3/4" Long

RST TYPE (SPECIAL SHAPE)

RST 4	4 oz. - 1-3/8" H x 2" W x 3-1/2" Lg.
RST 6	6 oz. - 1-3/4" H x 2-1/8" W x 4" Lg.
RST 8	8 oz. - 1-7/8" H x 2-1/4" W x 4-1/2" Lg.
RST 10	10 oz. - 2-1/8" H x 2-1/2" W x 4-3/8" Lg.
RST 12	12 oz. - 2-1/8" H x 2-1/2" W x 5" Lg.

SLANT TYPE

SS-1	1 oz. - 1-1/8" H x 1-3/8" W x 2-1/2" Lg.
SS-2	2 oz. - 1-1/4" H x 1-3/4" W x 2-3/4" Lg.
SS-4	4 oz. - 1-3/8" H x 2" W x 3-1/2" Lg.
SS-6	6 oz. - 1-3/4" H x 2-1/8" W x 4" Lg.
SS-8	8 oz. - 1-7/8" H x 2-1/4" W x 4-1/2" Lg.
SS-10	10 oz. - 2-1/8" H x 2-1/2" W x 4-3/8" Lg.
SS-12	12 oz. - 2-1/8" H x 2-1/2" W x 5" Lg.
SS-14	14 oz. - 2-1/16" H x 2-5/8" W x 5-3/4" L
SS-16	16 oz. - 2-5/16" H x 2-11/16" W x 5-3/4 L

SLANT OVAL TYPE

SO-6	6 oz. - 2-1/2" H x 1-1/2" W x 4-5/8" L
SO-8	8 oz. - 2-3/4" H x 1-1/2" W x 5-11/32" L
SO-10	10 oz. - 3" H x 1-1/2" W x 6" L
SO-12	12 oz. - 3-1/4" H x 1-1/2" W x 6-1/2" L

"FUEL CELL" TANKS (W/KLAPPER KLUNK)

Round Type (Fuel-Cell)

CR-4	4 oz. - 1-3/4" O.D. x 3-5/8" Long
CR-6	6 oz. - 2" O.D. x 4" Long
CR-8	8 oz. - 2-5/16" O.D. x 4-3/16" Long
CR-10	10 oz. - 2-5/16" O.D. x 4-7/8" Long
CR-12	12 oz. - 2-1/2" O.D. x 5-1/2" Long

RST TYPE (FUEL-CELL)

CRST 4	4 oz. - 1-3/8" H x 2" W x 3-1/2" Lg.
CRST 6	6 oz. - 1-3/4" H x 2-1/8" W x 4" Lg.
CRST 8	8 oz. - 1-7/8" H x 2-1/4" W x 4-1/2" Lg.
CRST 10	10 oz. - 2-1/8" H x 2-1/2" W x 4-3/8" Lg.
CRST 12	12 oz. - 2-1/8" H x 2-1/2" W x 5" Lg.

SLANT TYPE (FUEL-CELL)

CSS 4	4 oz. - 1-3/8" H x 2" W x 3-1/2" Lg.
CSS 6	6 oz. - 1-3/4" H x 2-1/8" W x 4" Lg.
CSS 8	8 oz. - 1-7/8" H x 2-1/4" W x 4-1/2" Lg.
CSS 10	10 oz. - 2-1/8" H x 2-1/2" W x 4-3/8" Lg.
CSS 12	12 oz. - 2-1/8" H x 2-1/2" W x 5" Lg.

The standard tanks (R, RST, SS, SO) come with the tank, complete package of tubes, hoses, fittings, stopper, Klunk, and instructions. The "Fuel Cell" tanks (CR, CRST, CSS) come with everything the standard tanks have plus a special material donut shaped insert that acts as an anti-foam and anti-surge element.

SUL53000	SULLIVAN	SS-1 TANK	1.90	1.80	335
SUL53001	SULLIVAN	SS-2 TANK	2.10	2.00	335
SUL53004	SULLIVAN	SS-4 TANK	2.30	2.20	335
SUL53006	SULLIVAN	SS-6 TANK	2.40	2.30	335
SUL53008	SULLIVAN	SS-8 TANK	2.50	2.40	335
SUL53010	SULLIVAN	SS-10 TANK	2.60	2.45	335
SUL53012	SULLIVAN	SS-12 TANK	2.75	2.60	335
SUL53014	SULLIVAN	SS-14 TANK	2.95	2.80	335
SUL53016	SULLIVAN	SS-16 TANK	3.20	3.05	335
SUL53106	SULLIVAN	SO-6 TANK	2.40	2.30	335
SUL53108	SULLIVAN	SO-8 TANK	2.50	2.40	335
SUL53110	SULLIVAN	SO-10 TANK	2.60	2.45	335
SUL53112	SULLIVAN	SO-12 TANK	2.75	2.60	335
SUL53204	SULLIVAN	CR-4 TANK	2.20	2.10	335
SUL53206	SULLIVAN	CR-6 TANK	2.35	2.25	335
SUL53208	SULLIVAN	CR-8 TANK	2.40	2.30	335
SUL53210	SULLIVAN	CR-10 TANK	2.60	2.45	335
SUL53212	SULLIVAN	CR-12 TANK	2.75	2.60	335
SUL53304	SULLIVAN	CSS-4 TANK	2.35	2.25	335
SUL53306	SULLIVAN	CSS-6 TANK	2.40	2.45	335
SUL53308	SULLIVAN	CSS-8 TANK	2.70	2.55	335
SUL53310	SULLIVAN	CSS-10 TANK	2.85	2.70	335
SUL53312	SULLIVAN	CSS-12 TANK	2.95	2.80	335

SUL53404	SULLIVAN	CRST-4 TANK	2.35	2.25	335
SUL53406	SULLIVAN	CRST-6 TANK	2.60	2.45	335
SUL53408	SULLIVAN	CRST-8 TANK	2.70	2.55	335
SUL53410	SULLIVAN	CRST-10 TANK	2.85	2.70	335
SUL53412	SULLIVAN	CRST-12 TANK	2.95	2.80	335
SUL53504	SULLIVAN	RST-4 TANK	2.20	2.10	335
SUL53506	SULLIVAN	RST-6 TANK	2.30	2.20	335
SUL53508	SULLIVAN	RST-8 TANK	2.40	2.30	335
SUL53510	SULLIVAN	RST-10 TANK	2.50	2.40	335
SUL53512	SULLIVAN	RST-12 TANK	2.65	2.50	335
SUL53601	SULLIVAN	R-1 TANK	1.85	1.75	335
SUL53602	SULLIVAN	R-2 TANK	1.95	1.85	335
SUL53604	SULLIVAN	R-4 TANK	2.05	1.95	335
SUL53606	SULLIVAN	R-6 TANK	2.15	2.05	335
SUL53608	SULLIVAN	R-8 TANK	2.25	2.15	335
SUL53610	SULLIVAN	R-10 TANK	2.40	2.30	335
SUL53612	SULLIVAN	R-12 TANK	2.50	2.40	335
SUL53616	SULLIVAN	R-16 TANK	2.75	2.60	335
SUL53800	SULLIVAN	PKT TANK STOPPER ASSY	1.45	1.40	335
SUL55100	SULLIVAN	FF FILTERED FUELER 4'	2.50	2.40	335



# GLIDER ACCESSORIES

## Glider Accessories

The items in this section will help you get the most out of your R/C glider.

One of the most important pieces of equipment used in the sport of R/C gliding is the hi-start. A hi-start is basically composed of a 350' nylon line connected to a 100' piece of surgical tubing. The hi-start is staked to the ground, stretched out, connected to the glider, and released. The rubberband affect launches your glider from 200' to 500' depending on the size of the glider and the hi-start.

The most popular hi-starts available are manufactured by Craft-Air. They produce both a standard and a heavy-duty hi-start that are of excellent quality. Each includes a steel stake, nylon tow line, surgical tubing, parachute, tow ring, and a very handy injection molded reel. In general, the standard hi-starts are used to launch gliders with less than a 100" wingspan and the heavy duty version is used to launch gliders with greater than a 100" wingspan. Craft-Air also produces a

small version of the hi-start which they call the Upstart. It is a kit that you assemble in 15 minutes and is designed for launching 2 meter and standard class sailplanes in limited space. It produces launches of approximately 200' in only a 300' field. Airtronics also produces hi-starts which they call launch pails. These come in a plastic bucket for storage as opposed to coming on a reel.

You can also launch your glider to gliding height by the use of an engine mounted to your craft on something called a power pod. By the use of this attached engine the glider climbs until the engine runs out of fuel and stops; then you fly the glider as normal. If you don't want to have the drag penalty of the engine once it stops, get the Craft-Air Para-Pod. It drops off when the engine stops, and floats gently down to ground by a parachute.

Also included in this section are other items to aid you in gliding such as towhooks, replacement hi-start tubing, and skids.

## AIRTRONICS



### HI-START SURGICAL TUBING

Highest quality natural latex with additives specially formulated for abrasion and ozone resistance. Provides the highest energy available with a smooth steady pull for safe launches. Supplied in one unspliced 100 foot length.

**Standard.** 1/8 inch bore x 3/64 inch wall thickness. Suitable for most sailplanes up to 100 inch span, weighing 16 - 40 ounces. Use for Questor, Super Questor, Square Soar and Cadet.

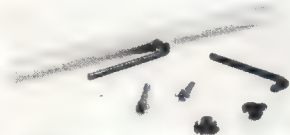
... #AIR20524

**Heavy Duty.** 3/16 inch bore x 1/16 inch wall thickness. More power for larger sailplanes weighing 40 - 80 ounces. Use for Aquila, Grand Esprit and Olympic II.

... #AIR20525

### ADJUSTABLE SUPER HOOK

For R/C Sailplanes weighing more than 3 lbs. Rugged extruded aluminum bar with slot for infinite adjustment. Includes all mounting hardware and spare .090" diameter hook.



## AIRTRONICS

Launch your R/C sailplane to thermal altitude with a Hi-Start. Basically a big rubber band which is staked at the upwind end of the flying field with a length of monofilament line attached. The line is hooked to the model, the rubber stretched by walking back 200 - 300 feet before release. The pull of the rubber causes the model to rise steeply. Up to 500 foot altitudes can be achieved.

Includes continuous 100 foot length of special latex surgical tubing, a specially designed lightweight parachute, 400 feet of 30 pound test monofilament line, a line storage reel, stake, swivels, split rings and welded rings for the tubing.

**Standard.** 1/8" dia. x 3/64" wall tubing. For models weighing 16 - 40 oz. and most sailplanes up to 100" span. Use for Questor, Square Soar, Cadet, Super Questor or similar models. ... #AIR20001

**Heavy Duty.** 3/16" dia. x 1/16" wall tubing. For models weighing 40 - 80 oz. Use for Aquila, Olympic II, Grand Esprit or similar models. ... #AIR20002

### TOW HOOKS

For attaching the tow ring to the sailplane for launching. Feature machined threads, blind mounting nuts and all hardware for secure, rigid mounting.

**Adjustable Super Hook.** Provides the competition flier a means to achieve maximum launch height in all conditions. Rugged extruded aluminum bar with Tee-Slot allows infinite adjustment. All hardware and spare .090 inch diameter hook included. ... #AIR20511

### MISCELLANEOUS ACCESSORIES

**Deluxe Skid.** For all R/C sailplanes this 1/8 inch x 1/2 inch x 12 inch long skid is molded from tough polyurethane rubber for maximum abrasion resistance. It will stand up to asphalt or concrete runways even on the largest ships. Hi-Tack contact adhesive and retaining screw for easy installation. ... #AIR20514

AIR20001	AIRTRONICS 9504 LCH. PAIL STD.	39.95	31.95	336
AIR20002	AIRTRONICS 9505 LCH. PAIL H.C.	44.95	34.95	336
AIR20911	AIRTRONICS 9511 ADJUSTBLE HOOK	2.50	2.40	336
AIR20514	AIRTRONICS 9514 DELUXE SKID	2.50	2.40	336
AIR20524	AIRTRONICS 9524 STD TUBING	22.95	18.95	336
AIR20525	AIRTRONICS 9525 HEAVY TUBING	24.95	19.95	336



## HI-START

- Injection Molded Custom Reel
- One Piece U.V. Stabilized Surgical Tubing
- Nylon Tow Line
- Strong, Light Parachute
- Steel Stake
- Steel Tow Ring
- Strong, Steady Power
- Easy to Lay Out
- Easy to Retrieve
- Easy to Stow
- Easy to Store



The standard hi-start (No. 502) is generally for sailplanes with spans of 100" or less. The heavy-duty (No. 503) is generally for sailplanes with spans of 90" and up.

### STANDARD CLASS

HI-START ..... CAT. 502  
TUBING ONLY ..... CAT. 505

### OPEN CLASS

HI-START ..... CAT. 503  
TUBING ONLY ..... CAT. 506

### HI-START PARACHUTE ..... CAT. 510

CRA20001	CRAFT-AIR #510 PARACHUTE	5.95	5.50	337
CRA20003	CRAFT-AIR #511 PARA-POD	9.95	8.75	337
CRA20010	CRAFT-AIR #502 STD HI-START	49.95	37.45	337
CRA20020	CRAFT-AIR #503 HWY HI-START	56.95	39.95	337
CRA20030	CRAFT-AIR #505 REGULAR TUBING	29.95	23.95	337
CRA20040	CRAFT-AIR #506 HEAVY TUBING	36.95	27.95	337
CRA20070	CRAFT-AIR #508 UPSTART 1/8"	19.95	15.95	337
CRA20080	CRAFT-AIR #509 UPSTART 3/16"	19.95	15.95	337

## CRAFT-AIR

Craft-Air hi-starts are made of the finest materials available and are very high in quality. This is why they have an excellent reputation and are by far the most popular hi-starts on the market today.

## UPSTART

From this

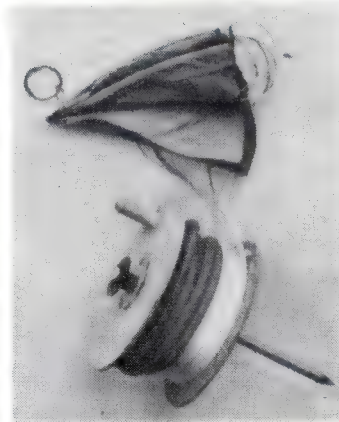
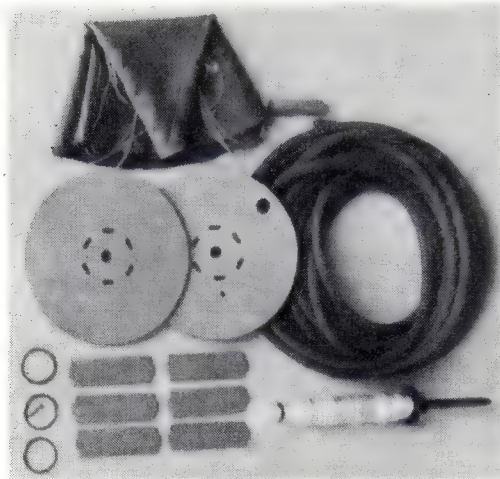
to this

in about  
15 minutes!!

Your Choice of 2 Sizes

#508 UPSTART 2m  
(1/8" rubber)

#509 UPSTART STD  
(3/16" rubber)



## PARA-POD



CAT. 511

- DESIGNED FOR LAUNCHING 2 METER AND STANDARD CLASS SAILPLANES IN LIMITED SPACE.
- PRODUCES LAUNCHES OF OVER 200' AND REQUIRES ONLY A 300' FIELD.
- EVERY HIGH SCHOOL ATHLETIC FIELD BECOMES A SAILPLANE AIRPORT
- THE UPSTART KIT CAN BE ASSEMBLED IN ABOUT 15 MINUTES AND INCLUDES SURGICAL LATEX TUBING, NYLON LINE, STEEL STAKE, PARACHUTE, COMPLETELY MACHINED PLYWOOD REEL, ALL HARDWARE AND INSTRUCTIONS.

- A launching pod that drops off when the engine stops, and comes down on its own parachute.
- Fits all sailplanes up to 10 ft.
- Automatic drop or command drop (3rd channel not required).
- Takes engine up to .15 cur. in.
- Low engine power requirements (.049 takes 2 lb. glider 800').
- Includes parachute.

- Will mount with rubber bands or can be screwed down for permanent installation.
- Fits Cox Tee Dee and Medalion .049 and .051 engines.
- Engine mounts upright or inverted.
- Running time approx. 4 min.
- Total weight 3/4 oz.
- Injection molded from tough nylon.
- Plenty of power for 3 lb. airplanes.



## D & R

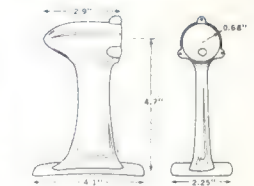
### D & R POWER POD

Comes complete less engine and prop.

## ESTES

Two-piece unit made of injection molded ABS plastic. For use with SkyMite electric motor to power assist existing sailplanes of up to 2 meters in wing span, eliminating the need for "hi-starts" or winches. No. 4081 (See page 132 for SkyMite electric motor.)

EST10081 ESTES 4081 SKYMITE POWER POD



6.25 5.65 337

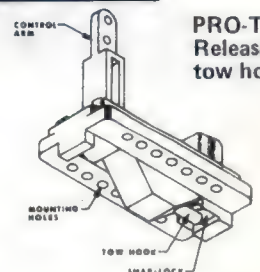
## ROCKET CITY

Has snap lock feature for easy tow line hook up.

Will work on elevator or spoiler servo.

Will work on loads to 40 pounds plus.

Features a locking system that is non critical. Mounting holes will allow plus or minus 1/2" adjustment.



PRO-TOW  
Releasable  
tow hook.

RCS20072 ROCKET CITY #72 PRO-TOW

4.98 4.60 337

DER14001 DER POWER POD

5.95 5.35 337





Dear Tower Customer:

I always thought that scanners were a waste of money. After all, who wants to listen to everything that's happening on all those mysterious police, aircraft, and marine radio bands? Well, since receiving a Bearcat 220 scanner this last Christmas, I now know what I was missing! At my fingertips I now have the full aircraft band ("O'hare tower this is United 711 heavy..."), marine band ("...mayday mayday...") and the full bands of public service including police ("...car 54 where are you?..."), fire, ambulances, taxicabs, etc. This amazing scanner covers 7 bands including 30 - 50 MHz low band, aircraft 118 - 136, "Ham" band 144 - 148, 148 - 174 High band, Government 420 - 450, UHF 450 - 470, and UHF-T 470 - 512 MHz. Depending upon the mode selected I can scan an entire band, any selected portion of a band, or I can scan up to 20 frequencies of my own choice at once or either of two banks of 10 channels. Selected frequencies can be changed simply by entering in any new frequency into any position at any

## BEARCAT

# Bearcat® 220

AIRCRAFT • MARINE • PUBLIC SERVICE

20 CHANNEL CRYSTALLESS  
AUTOMATIC SCANNING RADIO

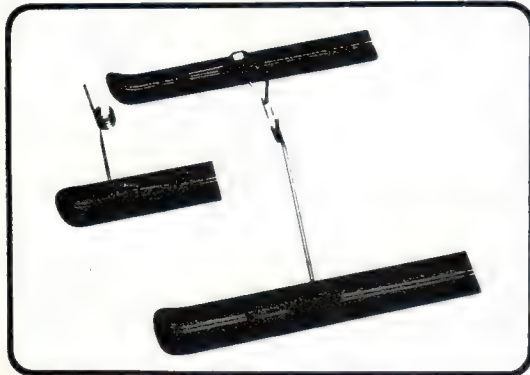
time. When scanning any of the bands or portions of bands I can set the scan speed to either 4 or 11 channels per second. This plus other features like automatic search, priority search, automatic lockout, selective scan delay, decimal display, automatic squelch, deluxe keyboard entry, and AC/DC operation all add up to a very high quality unit that has provided me many hours of evening entertainment while reading the daily newspaper. Also, every morning I tune in Champaign's airport ATIS (Automatic Terminal Information Service) frequency and get an hourly updated pre-recorded weather briefing. Many medium and all large airports have this service for you to take advantage of. There are numerous other services available that you will find informative, interesting, or just plain old entertaining. Thinking that some Tower customers might be interested in a scanner, I got samples of the other scanners to run a side-by-side test of my own to determine which was the best. My conclusion is that the Bearcat scanners are the best and that this model 220 is the most versatile. I recommend it without reservation.

Sincerely, Bruce Holecsek

BEA90220 BEARCAT 220 SCANNER

399.95 379.95 338

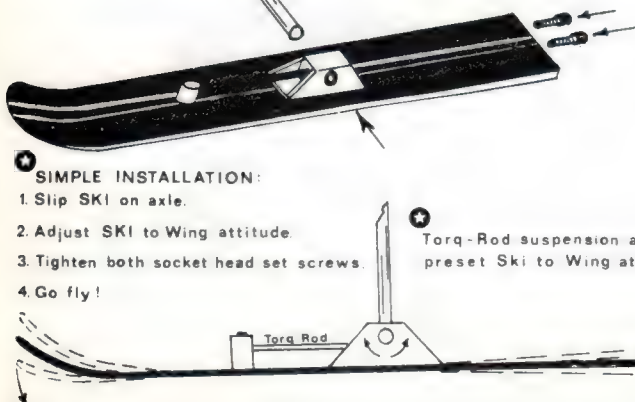
## Model Snow Skis



Note Main Model Size 3pc. Set

2.25"x8" 2"x14" .19 to .40eng.

3"x8" 3"x16" .45 to .60eng.



### SIMPLE INSTALLATION:

1. Slip SKI on axle.
2. Adjust SKI to Wing attitude.
3. Tighten both socket head set screws.
4. Go fly!

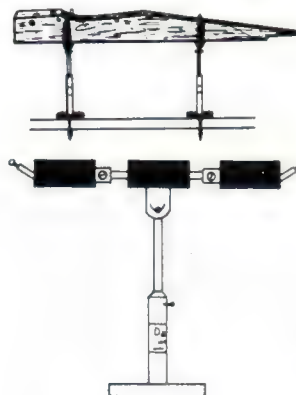
Torq-Rod suspension always maintains preset SKI to Wing attitude

## DACA

### "CLAMP-ON MODEL" CRADLES

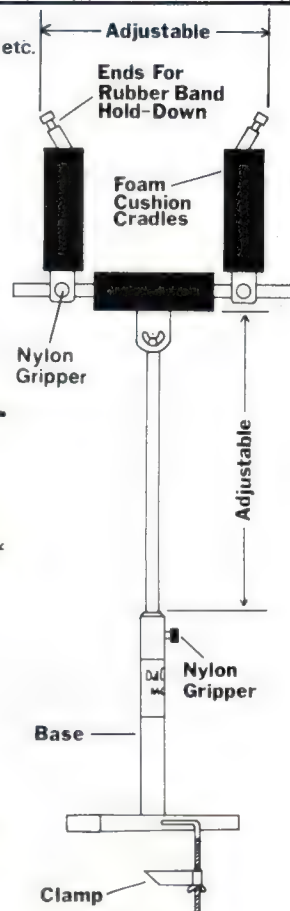
- Holds ALL models for BUILD'G-GLUE'G-REPAIR'G etc.
- Adjustable LENGTH & HEIGHT
- Tilts models at any position
- Clamps to any bench
- Machined aluminum

Each set includes one pair of bases and one pair of cradles.  
12 sizes:  
F6T—base adjusts from 3 to 6 in. width and is 4 in. deep.  
F9H—base adjusts from 3 to 9 in. width and is 6 in. deep.



AIRCRAFT CRADLES  
CONVERT TO WING  
CRADLES.

DAC2CC40	DACA TORC-SKI SET 19-40	24.95	21.20	338
DAC2CC60	DACA TORC-SKI SET 45-60	29.95	25.45	338
DAC9C640	DACA F6T ADJ. CRADLE 3-6"X4"	39.95	36.95	338
DAC9C690	DACA F9H ADJ. CRADLE 3-9"X6"	39.95	36.95	338





**CRAFT-AIR**

# At Last!

## A QUALITY FIELD SUPPORT BOX AT A REASONABLE PRICE

AND WHAT'S MORE IT...

- IS NOT A KIT.
- DOESN'T NEED TO BE GLUED TOGETHER.
- DOESN'T NEED TO BE PAINTED.
- WON'T ABSORB FUEL OILS.
- WON'T BREAK.

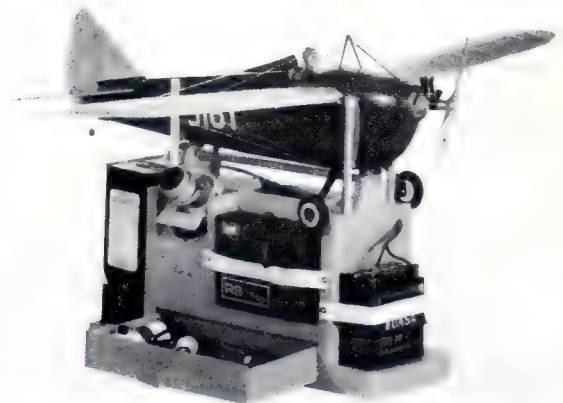
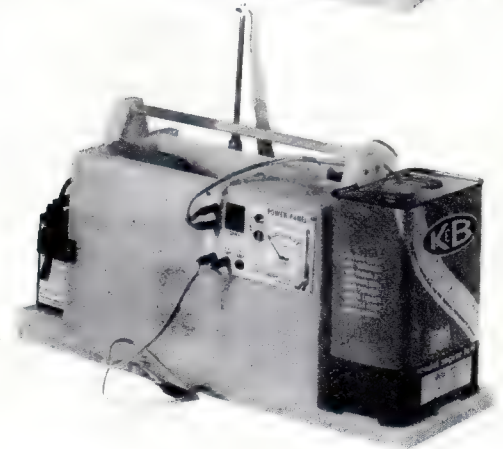
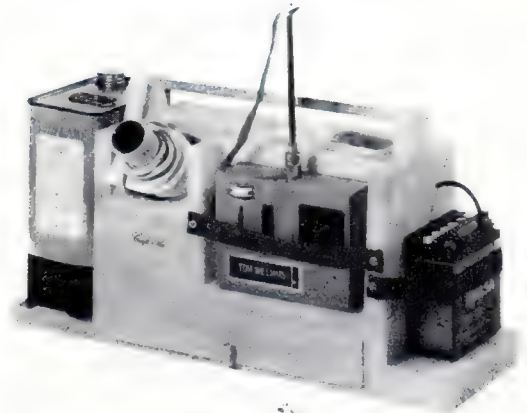
*That's what it ain't. ....*

*What it is. ....*

- IS READY TO USE.
- IS MADE OF HI-DENSITY POLYETHELENE (U-V STABILIZED.)
- IS PRACTICALLY INDESTRUCTIBLE.
- IS EASY TO KEEP CLEAN.
- HOLDS MOTORCYCLE OR GEL-CELL BATTERY SECURELY.
- HOLDS ANY SIZE CAN OF FUEL SECURELY.
- HOLDS ANY SIZE TRANSMITTER SECURELY.
- HOLDS ANY STARTER IN REMOVABLE STARTER WELL.
- HOLDS PROPS, TOOLS, ETC., IN LARGE 12 1/2"x6 3/4"x2" DRAWER.
- HAS REMOVABLE 4"x7"x4" DITTY WELL IN TOP.
- HAS VARATHANE COATED HANDLE [at C.G. for any loading]
- HAS ROOM FOR MOUNTING POWER PANEL, E.S.V., ETC.
- IS ATTRACTIVE BRIGHT YELLOW WITH TEXTURED FINISH.
- INCLUDES 10 MINUTE INSTRUCTIONS FOR AIRCRAFT CRADLE.
- AND BEST OF ALL. .... IT'S ONLY

CRA90100 CRAFT-AIR #500 FIELD BOX

34.95 25.95 339



## GEE BEE



### FLOATS

Proven design in years of flying - easily adaptable to most models  
virtually indestructible - complete and ready to fly - now in two  
sizes -

28" for 20 to 40 power  
33" for 40 to 60 power

GBE20028 GEE BEE FLOATS 28 IN.  
GBE20033 GEE BEE FLOATS 33 IN.

22.95 18.95 339  
24.95 20.55 339

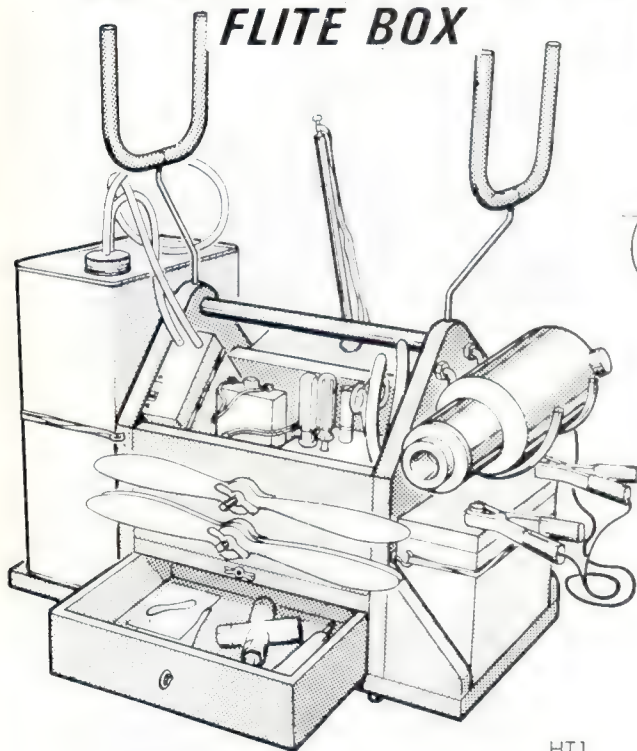
# FLOATS



## MISCELLANEOUS

# HANDI-TOTE

## FLITE BOX



HT1

Here's the Flite Box that won't give you a hernia! Compact like you won't believe, yet room for everything you need. HANDI-TOTE was designed by Bob Rich, a practical modeler who flies a lot as he travels around (he's our field representative!). Kwik-Assembly kit HT1.

### FOR ASSEMBLY, THE FOLLOWING IS REQUIRED:

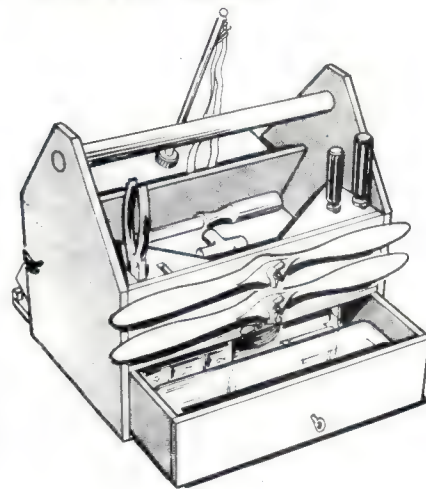
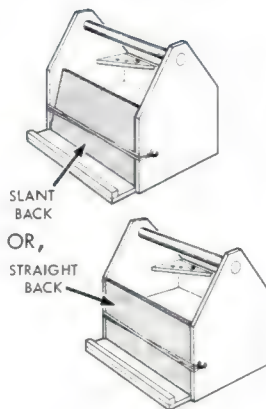
A good glue such as Tite-bond, Wilhold or epoxy, fine and medium sandpaper, stain (if desired), fuelproof finish such as polyurethane varnish, a 7/32" drill bit, thin plastic film such as Saran Wrap, 1/32" to 1/16" x 6" x 7-3/4" cardboard, and Scotch or masking tape. Use glue according to manufacturer's instructions.

# GOLDBERG

MT-1

# MINI-TOTE

## FLITE BOX



The solid success of the Handi-Tote leads naturally to the MINI-TOTE. For the modeler who just wants a flite-line box without a starter and big battery, gallon of fuel or airplane carriers, etc. Mini-Tote builds quickly and easily from accurately cut parts, carries everything you need for quick service. Suitable for control line and R/C. Vertical panel can be tilted for transmitter use. MT-1

### FOR ASSEMBLY, THE FOLLOWING IS REQUIRED:

A good glue such as Tite-bond, Wilhold or an epoxy, fine and medium sandpaper, stain (if desired), fuelproof finish such as polyurethane varnish, thin plastic film such as Saran Wrap, 1/32" to 1/16" x 6" x 7-3/4" cardboard, two books for weights, Scotch or masking tape for correcting warps and twists inherent in all 1/4" thick plywood and to hold glued joints in place until dry.

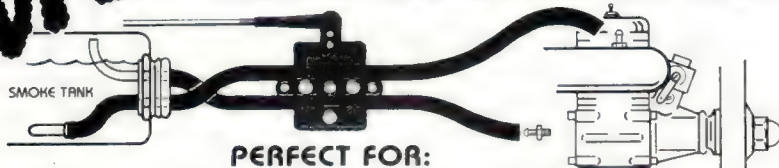
GBG9CC00 GBG 91 HT-1 HANDI-TOTE  
GBG9CC01 GBG 90 MT-1 MINI-TOTE

19.95 14.95 340  
10.95 8.75 340

# DU-BRO

## SUPER SMOKER

A POSITIVE, NO LEAK  
FUEL AND PRESSURE SHUTOFF VALVE



PERFECT FOR:

- Smoke systems--anyone with a plane large enough to install a separate smoke tank can incorporate the super smoker for added flying enjoyment.
- Inflight Fuel Shutoffs For Pylon or Free Flight R/C.

### SUPER SIMPLE AND EASY TO INSTALL

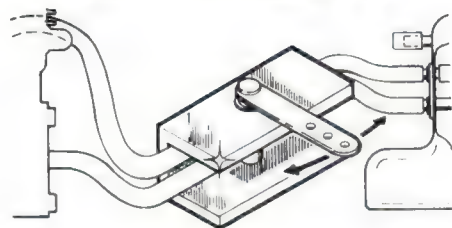
This valve is compact enough to mount anywhere—in any position and requires one extra servo to operate. The Du-Bro Super Smoker comes assembled complete with 34" of neoprene fuel tubing, two pressure fittings, mounting screws and complete instructions.

# DU-BRO

CLP2C255 DU-BRO 255 SUPER SMOKER

7.95 7.15 340

# HIGLEY'S



### SMOKE SYSTEM II

A new, simpler smoke system from Higley. Constructed from aluminum and steel, not cheap plastic. Works by pinching the lines to the auxiliary kerosene tank.

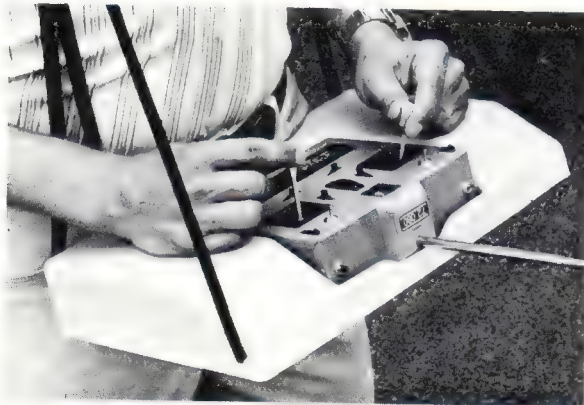
Package includes flow control unit plus the taps for the crankcase and muffler. Well made!

HIG90150 HIGLEY'S SMOKE SYSTEM II 9.95 8.95



## KRAFT

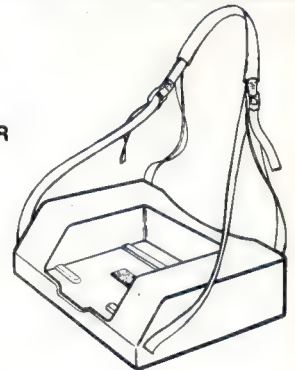
### TRANSMITTER TRAY



KRA20142 KRAFT 200-142 TRANSMITTER TRAY

19.95 17.95 341

- VACUUM MOLDED OF DURABLE ROYALITE® PLASTIC
- ADJUSTABLE STRAPS FOR BALANCE AND FIT
- VELCRO® INSERT FOR SECURE MOUNTING



Transmitter trays have long been used by the world's best fliers for the most accurate control possible. Our trays may be used with all Kraft Series Seventy-One and later dual stick transmitters, and many other brands. Long transmitter sticks are recommended to be used with this tray.

Part Number 200-142.

## Available Now!

WHAT'S  
NEW?

The  
Birds'  
Nest



## NOVA PLASTICS

### SPECIFICATIONS AND DETAILS:

- Made from ABS for strength & durability.
- Accepts models with 118" wing span that divide in 2 or 3 equal sections. Stabilizer should be removable.
- Wing cord should not exceed 12½".
- Foam rubber for packing & elastic suspension bands for securing parts in case furnished.
- Case closes with toggle-over latches.
- "The Bird's Nest" shipped unassembled.

Now you can provide that favorite bird a convenient, secure home. Whether you're traveling or just want a good, safe way of storing your favorite model, **THE BIRD'S NEST™** is your answer.

### IDEALLY SUITED FOR —

- Big Birdy
- Bird of Time
- Mirage
- Olympic II
- The Aquila
- Wind Drifter SD100
- and other glider and power models

NCV90100 NOVA BIRD'S NEST

79.95 63.95 341



## MISCELLANEOUS

### PRATHER

#### TRANSMITTER COVER



RAWHIDE VINYL

PROTECT  
YOUR TRANSMITTER

- Dirt & Dust Proof
- Water Resistant
- Protects Trim Buttons

*Custom made with zipper top*



SUN SHIELD  
PROTECTS  
AGAINST GLARE  
NO DISTORTIONS  
IDEAL FOR SOARING

*Save your plane  
that could be lost  
from sunglare*

SNAPS ON ANTENNA

PRA21C90	PRATHER 7030 TRANSMITTER COVER	5.95	5.35	342
PRA21190	PRATHER 7040 SUN SHIELD	4.98	4.60	342

### RAM

## PILOTS!



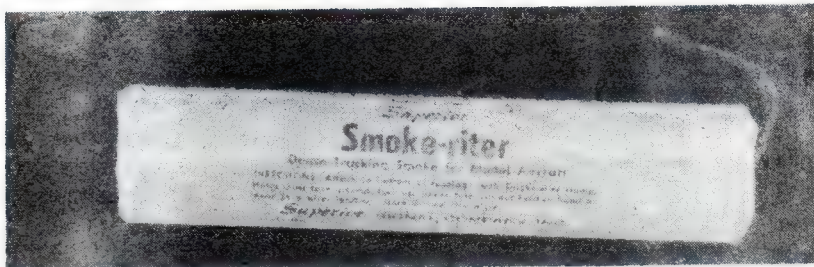
Old Timer   WW II Army   WW II Navy   WW II German   Jet

DIC CONTROLLED  
**Ram** MODELS INC.

RAM20101	RAM PI-001 PILOT-OLD TIMER	5.95	5.35
RAM20102	RAM PI-002 PILOT-WWII ARMY	5.95	5.35
RAM20103	RAM PI-003 PILOT-WWII NAVY	5.95	5.35
RAM20104	RAM PI-004 PILOT-WWII GERMAN	5.95	5.35
RAM20105	RAM PI-005 PILOT-JET	5.95	5.35

Perfect for .40-.60 size airplanes/Molded in 2 pieces for easy trimming and joining  
Instructions for joining and painting included/Historically accurate molded details  
Use full figure or cut off part to suit cockpit space/ Paint with plastic model paints  
Lightweight, vac formed plastic—approximately 1 oz.

### SUPERIOR



#### SMOKE RITER

Smoke equipped planes are rapidly becoming more popular with the "show team" type demos that are proliferating around the country. If you don't want to mess with complicated plumbing, you need a smoke cartridge like the

Smoke Riter manufactured by Superior Signal Company.

It weighs 7 oz., measures 1 1/2" D X 6", and produces about 3 minutes of dense white-to-grey smoke that is highly visible.

SLP9CC00 SUPERIOR SMOKE-RITER

2.95 2.50 342

### All Foam Molded FLOATS



#### FLOATS

FOR WATER  
FOR ICE  
FOR SNOW

No. 301 Floats for Planes up to 5 1/2 lbs.

### SUREFLITE



SLR77301 SUREFLITE 301 FLOATS

17.95 15.25 342



**super  
stand**

- FOR FIELD MAINTENANCE
- POINT TO POINT CARRIER
- BUILT-IN TRAY AREAS
- BUILDING / ALIGNMENT JIG
- PAINTING...AN EXTRA HAND
- STORAGE STAND



## ROBART

3 gear trike set:  
small #ROB20302  
large #ROB20301

2 gear mains set:  
small #ROB20202  
large #ROB20201

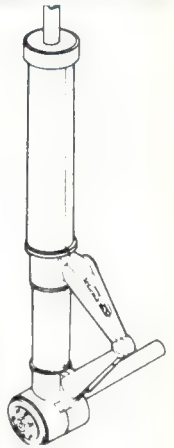
RCB20101	ROBART SUPER STAND
RCB20201	ROBART SCALE GR STRUT SGM1 LG
RCB20202	ROBART SCALE GR STRUT SGM2 SM
RCB20301	ROBART SCALE GR STRUT SGT1 LG
RCB20302	ROBART SCALE GR STRUT SGT2 SM
RCB20400	ROBART .40 P51 MAIN GEAR STRUT
RCB20410	ROBART .60 P51 MAIN GEAR STRUT
RCB83500	ROBART STICK MIXER - SANWA
RCB83601	ROBART STICK MIXER - FUTABA

**scale  
gear strut**

SCALE DETAIL  
THAT COVERS  
THOSE UGLY  
MUSIC WIRE  
LANDING  
GEARS

AVAILABLE  
IN TWO STYLES

5.98	5.85	343
2.98	2.85	343
2.98	2.85	343
2.98	2.85	343
2.98	2.85	343
3.98	3.65	343
3.98	3.65	343
8.95	7.95	343
8.95	7.95	343



## Stick Mixer

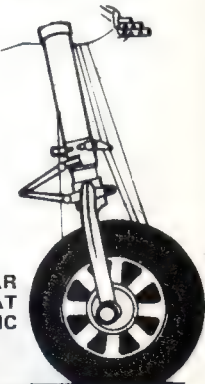
- SINGLE STICK ADAPTOR FOR TWO CHANNEL RADIO
- FITS 'FUTUBA' AND 'COX SANWA'
- EASILY REMOVED TO GO BACK TO CAR-BOAT MODE



**NEW**  
P-51 Gear Strut

Another  
Robart  
Exclusive

P-51 STYLE OFFSET GEAR  
STRUT SCALE DETAIL THAT  
COVERS THOSE UGLY MUSIC  
WIRE LANDING GEARS.  
40 OR 60 Size Main Gear



**NEW!**

## A Reusable Simulated EXPLODING BOMB

SEPARATES ON IMPACT TO DISCHARGE  
A PAYLOAD OF CHALK OR FLOUR

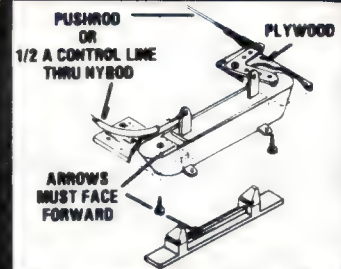
SCALES TO 500 LB. SIZE  
FOR TOP FLIGHT STAND-OFF  
KITS OR 1000 LB. SIZE FOR  
HOUSE OF BALSA 40 POWERED P-51

COMPATIBLE  
WITH OUR  
BOMB RELEASE  
MECHANISM



## FEATURES

- POSITIVE LOCK
- LOADS INSTANTLY  
(LOAD CLIPS IN - NO TOOLS  
OR TRANSMITTER NEEDED)
- EASILY ADAPTABLE  
TO SPORT, SPORT  
SCALE & A.M.A.  
SCALE MODELS
- PERFECT FOR FUN  
FLY BOMB DROPS
- ASSEMBLED, READY  
TO INSTALL



## Bomb & Drop Tank RELEASE MECHANISM

EXTRA CLIPS SOLD  
SEPARATELY

**VORTAC**

VCR20100	VORTAC BOMB RELEASE MECHANISM	4.98	4.50	343
VCR20101	VORTAC RELEASE CLIPS -2-	.98	.95	343
VCR20201	VORTAC GREEN BOMB-1 ONLY	4.98	4.50	343
VCR20202	VORTAC GREEN BOMBS-TWIN PACK	9.98	8.95	343
VCR20301	VORTAC ORANGE BOMB-1 ONLY	4.98	4.50	343
VCR20302	VORTAC ORANGE BOMBS-TWIN PACK	9.98	8.95	343

## WINDSOCK



A MUST FOR EVERY FLYING FIELD!

TCW20500 TOWER WIND SOCK

39.95 32.95 343

## TOWER HOBBIES

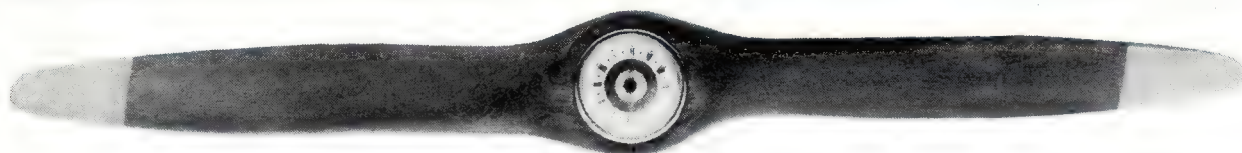
This high-quality windsock is ideal for any flying field. It is a brilliant day-glo orange and features a 27 inch length and a 6½ inch diameter with an internal frame that keeps the sock open. It is very sensitive and becomes fully extended in 15 mph winds. It mounts to an adjustable length pole which is included. All necessary hardware is included. Assembles in 5 minutes.



## INTRODUCING THE TOWER HOBBIES TROPHY COLLECTION

TOWER NOW BRINGS YOU THESE UNIQUE DISPLAY ITEMS AS A TRIBUTE TO YOU AND YOUR HOBBY. EACH OF THESE ITEMS HAS BEEN CAREFULLY SELECTED BY TOWER FOR YOU TO DISPLAY WITH PRIDE. ADD A TOUCH OF YOUR HOBBY TO YOUR FAVORITE ROOM WITH THESE BEAUTIFUL CONVERSATION — STARTING TROPHIES. GREAT FOR OFFICE, DEN, FAMILY ROOM, OR EVEN YOUR WORKSHOP!

YOUR FRIENDS WILL ENVOUSLY COMPLIMENT YOU AND DEMAND TO KNOW WHERE YOU FOUND SUCH UNUSUAL ITEMS. THEY'RE TOWER HOBBIES EXCLUSIVES, IF YOU SHOULD DECIDE TO REVEAL YOUR SOURCE.

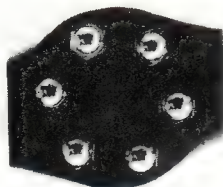


*from the Trophy Collection . . .*

### TOWER HOBBIES DECORATIVE PROPELLERS

Now, for the first time, these high quality, simulated wood decorative display propellers are available at a price far below any of the used unairworthy props now being sold for decoration. These full size props are 44" long and are similar in size and design to props used on the famous Pitts Special. Props with chrome nut covers and with the clock are light oak colored with yellow tips. Comes totally complete and ready to hang (one "C" size battery is required but not included).

**TOWER HOBBIES DECORATIVE PROPELLER WITH CHROME NUT COVERS - No. TOW99100; TOWER HOBBIES DECORATIVE PROPELLER WITH CLOCK - No. TOW99200**



TOW99100 TOWER DISPLAY PROP W/BOLTS  
TOW99200 TOWER DISPLAY PROP W/CLOCK  
TOW99300 TOWER RC PILOT NEEDLEPOINT KIT

39.95 27.95 344  
59.95 44.95 344  
24.95 16.95 344

*from the Trophy Collection . . .*

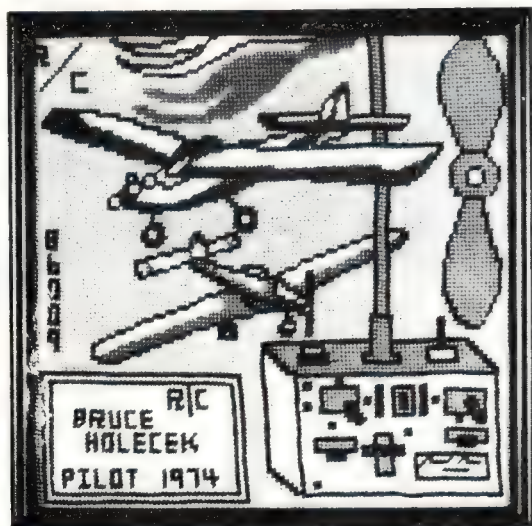
### the "R/C FLYER" Needlepoint Kit

This totally unique "R/C FLYER" needlepoint kit is the only one of its kind in the world. It features everything needed for completion . . . needle, detailed instructions, lettering chart for customizing your name and AMA number into the pattern, hand painted 12 mesh white imported mono canvas, and imported Persian yarn in beautiful colors.

Give it to your wife, girl friend, mother -- even your mother-in-law! In return she will give you the most unique trophy you have ever displayed in your workshop. Or, make it yourself and take it to the next club meeting for "Show and Tell" time!

**R/C FLYER NEEDLEPOINT KIT #TOW99300**

(actual size is 10" x 10")

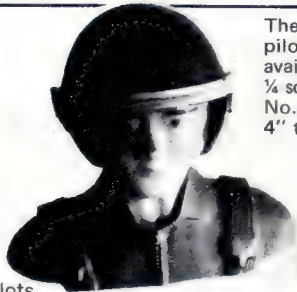


TOWER HOBBIES TROPHY COLLECTION ITEMS ARE AVAILABLE AT A SPECIAL DISCOUNT PRICE TO CLUBS OR OTHER ORGANIZATIONS FOR USE AS PRIZES OR TROPHIES FOR CONTESTS, BANQUETS, AWARDS, ETC.. SPECIAL PRICES WILL BE SENT UPON RECEIVING WRITTEN INQUIRY ON CLUB LETTERHEAD. NO PRICES GIVEN OVER THE PHONE.



# Scale Pilots

Any one of these pilots will add realism to your favorite model. Molded of high impact, paintable styrene, you can color them to your choice.



**MILITARY**

The standard pilot is now available in 1/4 scale. No. 625 4" tall.



**STANDARD**



**RACING**

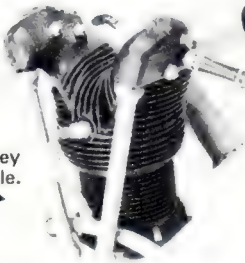


**SPORTSMAN**

SCALE	Military No.	Approx. Height	Standard No.	Approx. Height	Racing No.	Approx. Height	Sportsman No.	Approx. Height
1"	170	1 1/4"	174	1 3/16"	178	1 1/4"	182	1 3/16"
1 1/2"	171	1 7/8"	175	1 3/4"	179	1 13/16"	183	1 13/16"
2"	172	2 9/16"	176	2 3/4"	180	2 7/16"	184	2 3/8"
2 1/4"			177	3 1/16"	181	3 3/16"	185	2 7/8"

## WILLIAMS BROS.

No. 205 Pratt & Whitney "Wasp" cylinder. 2" scale. 2 1/2" height.



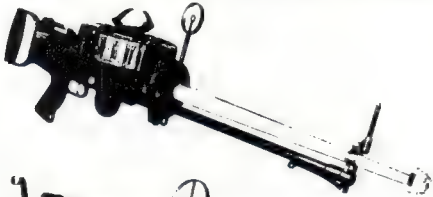
Engine Cylinders molded of high-impact styrene. Complete assembly instructions included, plus drawings for the crankcase mock-up.



No. 202 Wright J-5 "Whirlwind" cylinder. 2" scale. 2 1/2" height.

### 2" SCALE MACHINE GUN KITS

A World War I model plane without fire power? Unthinkable! Equip it with the correct aircraft machine gun for your particular plane. The four most popular guns now are available in kit form. Complete with easy-to-follow assembly instructions. Extensive research for authenticity and meticulous care in creation of the mold assures accurate detail.



No. 161

### LEWIS

The American made LEWIS Aircraft Machine Gun was used on Allied fighter, bomber and observation aircraft during World War I. It was employed singly, in pairs, and in conjunction with other guns. Generally it was mounted at the rear cockpit for defense of tail by the observer. The LEWIS was the original gun designed for pusher planes to put the gun up front.



No. 163

### PARABELLUM

The Parabellum, a German Aircraft Machine Gun, was developed in the year 1913 and used throughout World War I. It was used on all two-seater and bomber aircraft. On early fighter planes it was sometimes found mounted on the cowl with the shots synchronized to fire between the propeller blades.



No. 160

### VICKERS

England's contribution to aircraft firepower was the VICKERS Aircraft Machine Gun. It was used extensively on Allied fighter and reconnaissance planes of World War I. It was mounted as a forward firing weapon, operated by the pilot, and synchronized to fire between the propeller blades.



No. 162

### SPANDAU

The SPANDAU was one of two Aircraft Machine Guns used on German fighter and reconnaissance aircraft. It was the favorite weapon of the Red Baron, the Ace of Germany's Air Corps. With an inline engine they were usually mounted in pairs, one on each side. On planes with a radial engine they were mounted side by side on top.

WBR20170	WILLIAMS	PILOT	#170 MIL	1	1.05	1.00	345
WBR20171	WILLIAMS	PILOT	#171 MIL	1 1/2	1.45	1.40	345
WBR20172	WILLIAMS	PILOT	#172 MIL	2	1.70	1.60	345
WBR20174	WILLIAMS	PILOT	#174 STD	1	1.05	1.00	345
WBR20175	WILLIAMS	PILOT	#175 STD	1 1/2	1.45	1.40	345
WBR20176	WILLIAMS	PILOT	#176 STD	2	1.70	1.60	345
WBR20177	WILLIAMS	PILOT	#177 STD	2 5/8	2.35	2.25	345
WBR20178	WILLIAMS	PILOT	#178 RAC	1	1.05	1.00	345
WBR20179	WILLIAMS	PILOT	#179 RAC	1 1/2	1.45	1.40	345
WBR20180	WILLIAMS	PILOT	#180 RAC	2	1.70	1.60	345
WBR20181	WILLIAMS	PILOT	#181 RAC	2 5/8	2.35	2.25	345
WBR20182	WILLIAMS	PILOT	#182 SPT	1	1.05	1.00	345
WBR20183	WILLIAMS	PILOT	#183 SPT	1 1/2	1.45	1.40	345

Now available in 1/4 scale. No. 751

WBR90160	MACHINE GUN	160 VICKERS	3.30	3.05	345
WBR90161	MACHINE GUN	161 LEWIS	2.64	2.50	345
WBR90162	MACHINE GUN	162 SPANDAU	3.30	3.05	345
WBR90163	MACHINE GUN	163 PARABELLUM	3.85	3.55	345
WBR90202	202 2"	WRIGHT J-5 CYLINDER	1.70	1.60	345
WBR90205	205 2"	P&W WASP CYLINDER	1.70	1.60	345
WBR90750	MACHINE GUN	750 VICKERS 1/4 SC	7.65	6.95	345
WBR90751	MACHINE GUN	751 SPANDAU 1/4 SC	7.65	6.95	345
WBR20184	WILLIAMS PILOT	#184 SPT 2	1.70	1.60	345
WBR20185	WILLIAMS PILOT	#185 SPT 2 5/8	2.35	2.25	345
WBR20625	1/4 SCALE PILOT	#625 STD 3 IN.	3.55	3.25	345

ANTENNA EXIT

CRYSTAL CLEAR WINDSHIELD

DEEP FRAME WORK DETAIL

HEAVY GAUGE MATERIAL

MOLDED HEADREST

DETAILED INSTRUMENT PANEL

MOLDED DECK

## Canopy Kits!

## WING MFG. CO.



LOW PROFILE SPEED & SPORT CANOPY KIT



STREAMLINED PATTERN & SPORT CANOPY KIT

GIVE YOUR AIRPLANE A NEW, EXCITING LOOK WITH A WING CANOPY KIT. THE LIKES OF WHICH YOU HAVE NEVER SEEN BEFORE. YOU GET A TOP QUALITY CANOPY WITH CRISP FRAMEWORK DETAIL [EASY TO PAINT], MOLDED COCKPIT INSERT INCLUDING HEADREST & FRONT PANEL DECK, DETAILED PRINTED INSTRUMENT PANEL & ILLUSTRATED MOUNTING INSTRUCTIONS. CANOPY KITS FIT: KAOS, MACH I, NEW ORLEANIAN, ORION, TAURUS, SKYLARK, INTEGRA II, MISS NORWAY AND MOST OTHER LOW WING AIRCRAFT.

WIN20602	WING LOW PROFILE CANOPY #602	4.95	4.50	345
WIN20604	WING STREAMLINED CANOPY #604	4.95	4.50	345







# HOBBYPOXY HOW-TO'S

These excellent "How-To's" are brought to you courtesy of HobbyPox Products. Read through them for some very helpful tips and techniques. If you would like even more information on painting pointers then write for HobbyPox's excellent brochure. Use a "Tower Action Post Card" (see P-403) and ask for "HobbyPox Painting Pointers." Send the request to: HobbyPox Products, Division of Pettit Paint Co., 36 Pine St.-Dept. Tower, Rockaway, N.J. 07866.

## A HOBBYPOXY HOW-TO:

### PREPARING WOOD FOR PAINT

The key to a good paint job is proper preparation. All surfaces must be smooth and clean.

Let's look at smooth first: Wood has grain, and sometimes nicks and dents, and maybe knots and worm holes. For filling it's best to select a material that's just slightly softer than the wood itself. That way, you can sand the filler smooth without digging ditches in the surrounding surface. First seal the wood with a coat of Hobbypoxy Clear. Let it dry. Fill any dents with Hobbypoxy Stuff straight out of the can, let it dry, then sand it smooth. For grain filling I recommend Stuff, Hobbypoxy Filler, or Hobbypoxy Undercoater White. Stuff, thinned to brushing consistency with Hobbypoxy Thinner, goes on easy, sands easy, and fills fast. But it's pretty soft. Filler is a little harder to sand, but results in a harder surface. Undercoater White is a true two-part epoxy and gives the best results, but takes more time. Stuff and Filler are perfect for balsa models, while Undercoater White works great on plywood.

The secret to grain filling is not how much filler you put on, but how much you sand off. Generally speaking, you should sand the first couple of coats right down to the bare wood. This leaves the filler only in the low spots — which is precisely what you want. Follow this with one more coat, sanded smooth, and you should be ready for the top coat.

Now to the clean part: Before you paint you should remove all dust, oily fingerprints and other bad things from the surface. A careful vacuuming, followed by a gentle wipe-down with cheese-cloth dampened with thinner will do the job nicely. Don't use paper towels—they leave lint. Once it's clean, avoid handling the model too much. Now paint, using Hobbypoxy (preferably) or any other product. All Hobbypoxy filler materials, once completely dry or cured, are compatible with dope, epoxy, enamel and other model paints.

For more info, send for a free copy of "Pox Painting Pointers"

## A HOBBYPOXY HOW-TO:

### HOW TO FINISH FOAM

We use a lot of foam in our models nowadays — for wings, fuselages, boat hulls — and the best way to protect and strengthen the surface and prepare it for paint is to coat it with Hobbypoxy Formula 2 Epoxy Glue.

Begin by sanding off any rough spots and mold marks on the foam. While you're doing this, place the two tubes of Formula 2 near a gentle heat source — like a light bulb, or on a piece of wood placed on a radiator, or in front of a hot air register — in order to warm the tubes to bring the epoxy to a less viscous consistency. This will allow you to brush it out smoother when you apply it to the foam. When you're finished sanding, vacuum the foam to remove all dust.

I suggest you buy a couple of inexpensive 1" paint brushes at the hardware store (not camel hair brushes from the hobby shop!) and cut the bristles to about 1/2" length. This will result in a somewhat stiff-bristled brush which is perfect for applying the glue.

Now mix equal parts of Part A and Part B in a clean tin can, plastic cup or other convenient

container (not a waxed paper cup!), and brush it onto the foam as smoothly and evenly as possible. Go for a thin even coat, not for heavy coverage. When you've covered the entire surface, set it aside over night. Clean the brush in Hobbypoxy Thinner, followed with soap and water, and you'll be able to use it again.

After the glue has cured, sand it lightly with fine silicon carbide or aluminum oxide sandpaper, then vacuum it. Clean the surface with a rag dampened in alcohol, let it dry, then apply a second coat of Formula 2.

When this coat has cured, check to see that you have full unbroken coverage. Sand it smooth, and check again for bare spots. Cover any bare foam with another coat of glue. Fill any nicks or dents with Hobbypoxy Stuff and sand smooth.

All this will take only a couple of evenings, and will produce a tough, fuel proof skin on your foam structure. Two or three coats of Hobbypoxy Enamel will finish the job in high style.

## A HOBBYPOXY HOW-TO:

### WHAT'S A MICRO BALLOON?

I guess most of you have heard of micro balloons, have read about them in construction articles, and seen them advertised — but do you know what they are? Well, they're just what their name implies — microscopic hollow spheres made of glass or a phenolic plastic material. Because they're hollow, they don't weigh very much, and since their diameters are measured in millionths of an inch, they can be used to thicken epoxy and polyester resins without making them lumpy or grainy. The result is that you can use micro balloons to make a putty that's perfect for fillets and filling dents — it's incredibly strong, yet it's as light as balsa.

When using micro balloons with epoxy glues, measure out the correct proportions of glue first, but don't mix them together! Put each portion in a suitable container and add the same amount of balloons to each part. The higher the balloon content, the lighter the weight — with only a slight loss of strength. The reason for adding balloons to both Part A and Part B of the glue is to make them easier to mix together later, and also to

establish the viscosity of the final mix beforehand. If you use two sealable cans or jars, you can keep the unmixed putty indefinitely — using it as you need it — but the resin/balloon ratio of each part should be as close to identical as possible to allow you to measure out equal parts for proper mixing proportions.

Obviously, you can mix balloons with any of our epoxy glue formulas, but probably the most useful will be Formula 4 for quick-setting patches and dent filling, and Formula 2 for a longer working time when making fillets, setting sailboat keels, and the like.

When you apply the epoxy putty, smooth it as much as possible before it cures. Although it's light, it's quite hard, and not too easy to sand — especially when applied to balsa. When making fillets you can do a nice job of shaping and smoothing by using a finger, dipped in water. After it's cured, a light sanding followed by a couple of coats of Hobbypoxy Filler or Stuff will produce a smooth surface ready for paint.

## A HOBBYPOXY HOW-TO:

### PREPARING FIBERGLASS FOR PAINT

At first glance it might seem that fiberglass is a snap to paint — especially compared to wood. Fiberglass is smooth, has no grain to fill, isn't porous...what could be easier? But then why is it that paint peels off sometimes, or doesn't dry properly, or cracks after a while? The answer is poor preparation.

The first thing to do with your fiberglass fuselage or hull is to wash it down with Hobbypoxy Thinner to remove mold release, paraffin and other contaminants, then lightly sand it to a "frosty" appearance. Use reasonably fine aluminum oxide or silicon carbide paper, and sand until all the shine is gone. But don't sand so hard that you cut through the resin and into the glass fibers!

Now clean it again with Hobbypoxy Thinner. Inspect the surface by holding it up to the light. Do you see any cloth texture? Pinholes? Dents or ripples? If not, you're very lucky. For the rest of you who aren't so lucky, we have a few products to help you out.

Fill pinholes with Hobbypoxy Stuff, let dry, and sand smooth.

For bad dents or ripples, use Hobbypoxy Quick Prep polyester resin and micro balloons, or Hobbypoxy Formula 2 Glue. Apply, let cure, and sand smooth.

For filling and smoothing cloth texture, and as an excellent primer even on smooth fiberglass, a coat or two of Hobbypoxy Undercoater White will provide a perfect base for your paint job. Here's a little trick we suggest: mix it two parts "Part A" to one part "Part B" and it'll cure faster and sand even easier. If you want, you can brush it on, since brush marks will be sanded out anyway.

Before painting, you should vacuum the inside as well as the outside, then tape up all openings where you don't want the paint to go. This is especially important when spraying because spray blowing into cavities blows back onto the wet paint, depositing overspray and dust.

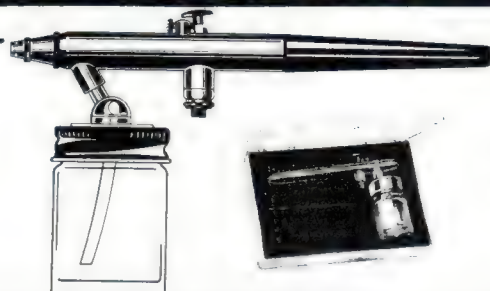
For the full story on good painting technique, send for a copy of "Hobbypoxy Painting Pointers". It's free.



## PAINT & PAINTING ACCESSORIES

# BADGER

The Badger 150 is a double action, internal mix air-brush. Because of the professional quality of these air-brushes, they are used when fine detailing and delicate touch-up are needed.

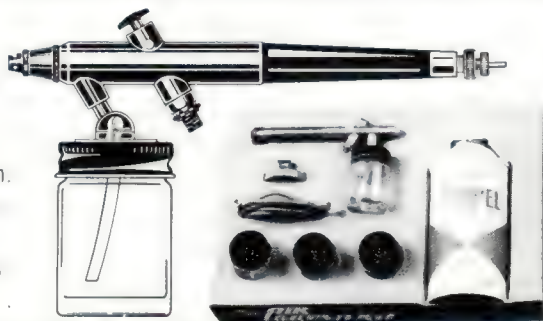


DOUBLE ACTION, INTERNAL MIX

### 150 IL Poster Air-Brush Kit contains:

fine line air-brush (for light to medium material uses and faster feed) with attached  $\frac{3}{4}$  oz. jar, protective cap, extra needle, 2 oz. jar with cover, wrench for head, color cup, instruction booklet, plastic case, air-brush holder.

The Badger 200 is a single action, internal mix air-brush. Ideal for touch-ups, arts and crafts, furniture refinishing, model airplanes, cars, trains and many household uses...



SINGLE ACTION, INTERNAL MIX

### 200-1 Air-Brush Kit contains:

fine line air-brush (for light to medium material uses and faster feed) two  $\frac{3}{4}$  oz. jars with covers, protective cap, wrench for head, how to air-brush instruction manual and plastic case.

### 200-3 Deluxe Kit contains:

fine line air-brush (for light to medium material uses and faster feed) with attached  $\frac{3}{4}$  oz. jar, protective cap, 6 ft. light weight vinyl air-hose, propel regulator, three  $\frac{3}{4}$  oz. jars with covers, propel can, wrench for head, and how to air-brush instruction manual.

The all NEW Badger 350 is a single action external mix air-brush. Great for handyman, craftsman, hobbyist, do-it-yourselfer, and just about EVERYONE...



### 350-3 Air-Brush Set contains:

medium line air-brush, 6 ft. vinyl air-hose, 2 oz. jar with cover,  $\frac{3}{4}$  oz. jar with cover,  $\frac{1}{4}$  oz. color cup, wrench, propel regulator, propel can, and how to air-brush manual.

SINGLE ACTION, EXTERNAL MIX

### 350-1-F Air-Brush Kit contains:

fine line air-brush, 2 oz. jar with cover,  $\frac{3}{4}$  oz. jar with cover, wrench, how to air-brush manual and plastic case.

The Badger MINI SPRAY GUN is a single action external mix air-brush. The spray pattern can be adjusted from  $\frac{3}{4}$ " (18.9 millimeters) to 2" (51 millimeters) by turning the paint tip. This model was designed for larger overall coverage as opposed to fine work and is ideal for fogging and blending, making textures, patterns, etc....



SINGLE ACTION, EXTERNAL MIX

### 250-1 Basic Spray Gun Kit contains:

air-brush with  $\frac{3}{4}$  oz. jar attached, propel regulator, 6 ft. light weight vinyl air-hose, extra  $\frac{3}{4}$  oz. paint jar with cover and instruction booklet.

### 250-4 Mini-Spray Gun Kit contains:

air-brush with 4 oz. jar attached, propel regulator, 8 ft. light weight vinyl air-hose, propel can and instruction booklet.

The BADGER Model 400 Detail Touch-Up Gun is designed and engineered with the same care and precision that has made our air-brushes the largest sellers in the world. We believe it is the finest detail touch-up gun on the market.

The Model 400 with overhead trigger is the only spray gun of its type that can be simply adjusted for use by a left or right handed sprayer. It may be used for circular or fan spray.

The BADGER Model 400 Detail-Touch-Up Gun was designed specifically for intricate spraying situations where delicate control is necessary. It provides greater accessibility, because of its compact, lightweight construction, to recessed areas.

The BADGER Model 400 Detail-Touch-Up Gun is a perfect companion to BADGER'S versatile air-brush line for custom painting of vans and other vehicles. It provides maximum flexibility for custom painting since it can be used for larger areas and also for precise detail work such as cartoon painting and also "trick" effects like "Cobwebbing".

The Model 400 is available with a choice of three (3) paint tips: small, medium and large, and can provide pattern sizes from smaller than a dime to a 3" spray depending on tip being used.

The Model 400 body is die cast aluminum and zinc. It is equipped with a lightweight but sturdy, all aluminum, one pint cup. It should be operated from a compressor or CO<sub>2</sub> tank. The following are flow rates and operating pressures for fan spray:

Small Tip	1.7 cfm at 30 P.S.I.
Med. Tip	2.3 cfm at 30 P.S.I.
Large Tip	3.5 cfm at 30 P.S.I.

Operating pressure for round or circular spray will be less. Special or "trick" effects such as "Cobwebbing" require up to 80 P.S.I.

### 400-2 Detail Gun

(comes with medium paint tip.)



"NO-DRIP"  
ALL ALUMINUM  
PAINT CUP

SEE PAGE 283 FOR EXCELLENT BOOKS ON PAINTING BY BADGER.



# PAINT & PAINTING ACCESSORIES



Badger Model 180-1 Portable oil-less diaphragm type compressor is a "bleeder" type that develops 25 PSI at 1.0 CFM. Compact, lightweight and quiet. Can be carried from room to room.

2 OZ.  
(60 cc.)



STOCK NO.  
50-0053

3/4 OZ.  
(22 cc.)



STOCK NO.  
50-0052

Both size jars with covers fit 150/200/350/250 model air-brushes



STOCK NO 50-001 (6 ft)  
STOCK NO 50-0011 (10 ft)  
Badger flexible light weight air hose of sturdy long wearing vinyl is available in 6 ft (1.83 meters) and 10 foot (3.05 meters) length. not recommended for use with compressor.

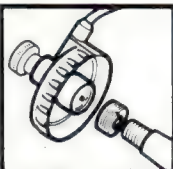
STOCK NO. 50-2011 Braided 10 ft. air hose with 1/4" pipe fitting. For use with compressor.



STOCK NO. 50-023  
1/4" (6.4 millimeters) pipe thread fitting adaptor (adapts air-hose to compressor or CO<sub>2</sub> tank)



STOCK NO. 50-200  
Badger propel regulator, made of high impact delrin, with metal parts. Adjusts propel can pressure from 10 to 50 PSI pressure. Control allows for finer adjustment of spray patterns. Prolongs life of propel.



STOCK NO 50-029  
**Spare tire valve adaptor**  
A spare tire from the family car can be used as a power source. Simply insert the adaptor into the on-off valve and attach to spare tire. NOTE: tire must be on a rim. Inflate to 40 lbs. of air.

## BADGER



17 oz.



11 oz.

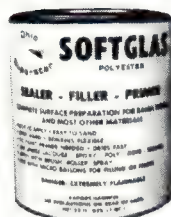
STOCK NO 50-202 STOCK NO 50-002  
PROPEL is Badger's own superior brand of propellant. Compounded for more even pressure, this formula lasts longer (by actual test) than previous conventional propellants. Available in two sizes: regular and economy size.

BAD62001	BADGER #200-1 AIR-BRUSH KIT	35.00	27.95	348
BAD62003	BADGER #200-3 DELUXE KIT	45.00	35.95	348
BAD62100	BADGER 11 OZ. CAN OF PROPEL	3.00	2.85	349
BAD62101	BADGER 17 OZ. CAN OF PROPEL	4.00	3.70	349
BAD62150	BADGER #150-1L POSTER AIRBRUSH	65.00	49.95	348
BAD62200	BADGER #180-1 COMPRESSOR	85.00	67.95	349
BAD62351	BADGER #350-1 AIR-BRUSH KIT	24.00	19.95	348
BAD62353	BADGER #350-3 DELUXE KIT	34.00	26.95	348
BAD62402	BADGER #400-2 DETAIL GUN	89.95	71.95	348
BAD62501	BADGER #250-1 STANDARD KIT	12.00	9.95	348

BAD62823	BADGER #50-023 PIPE THREAD FIT	2.00	1.90	349
BAD62829	BADGER #50-029 TIRE ADAPTOR	2.00	1.90	349
BAD62852	BADGER #50-0052 3/4 CZ. JAR	.60	.55	349
BAD62853	BADGER #50-0053 2 CZ. JAR	.75	.70	349
BAD62854	BADGER #PS-2 4 CZ. PAINT JAR	.75	.70	349
BAD62855	BADGER HERBY & CRAFT GUIDE	4.95	4.70	283
BAD62856	BADGER CUSTOM AIRBRUSH GUIDE	9.95	8.95	283
BAD62820	BADGER #50-2011 BRAIDED HOSE	8.50	7.65	349
BAD62504	BADGER #250-4 MINI SPRAY KIT	15.00	12.75	348
BAD62800	BADGER #50-200 PROPEL REGULATOR	4.50	4.15	349
BAD62811	BADGER #50-011 10 FT. AIR HOSE	5.00	4.60	349

## OHIO SUPERSTAR

# Softglas... The New, Complete Sealer-Filler-Primer For Balsa Wood Models. Sands as easily as Primer!



Softglas is the complete one-step surface primer, filler and sealer for a variety of materials, especially BALSA WOOD. Sands similar to primer! Won't clog sandpaper. Easy to apply. Use it under lacquer, epoxy, enamel, poly or dope. Dries hard, fast and flexible. Apply with brush, roller or spray.

Qt.

OHS6000 CHIC SUPERSTAR SOFTGLAS QT. 10.95 9.30 349

## PICA



### FILLIT

A brand new form of micro-balloon filler. It's concentrated, not "puffed-up," enabling it to be poured from a nozzle. This system allows you to accurately measure the portions to the precise density you desire. Fillit mixes readily with epoxies, polyesters, aliphatics, cellulose cements, in fact, use Fillit with any glue you wish. It forms a strong, ultra-light sandable solid. Even large wing fillets will cut down easily, quickly and smoothly.

See page 276 for Pica Gluit.

PIC61001 PICA 6001 FILLIT MICRO-BALLOON 2.39 2.25 349

## X-ACTO

# The Magic Touch Air Brush

by

## X-ACTO

When we say you can spray on almost any paint with the Magic Touch Air Brush, we mean it. It doesn't matter whether it's a lacquer or enamel base or water-base liquid, since they all go on precisely and smoothly with the Magic Touch Air Brush.

Because your coating is mixed internally, before it emerges from the brush, you'll get the finish you want.

You can use any propellant to operate the Magic Touch Air Brush. Clean up is fast and easy, too.

There's another big plus: the nozzle. It's truly adjustable, so you can spray patterns from 1/8" to 3", with comfortable precision. Which makes this brush ideal for stenciling, decoupage, water colors, and fine detailing.

Package consists of:

- High performance Magic Touch Air Brush
- Five foot hose with propellant can coupling
- One ounce glass bottle

In fact, the Magic Touch Air Brush can do any job that requires an even finish.



XAC68010 X-ACTO 8010 AIR BRUSH

29.95 25.45 349



## PAINT & PAINTING ACCESSORIES

### BALSARITE

Balsarite is a crystal clear liquid that makes balsawood watertight. You probably don't realize it, but many times when Monokote sags and comes unglued, it's because the balsawood is drying out, contracting, and pulling away from the Monokote.

Balsarite helps eliminate this frustrating problem.

As a matter of fact, it performs the same trick for Solarfilm & nearly every other covering. What's more, it makes all iron-ons stick better due to its deep wood penetration.

As for model boats and seaplanes, it's a must. Bet you didn't know that Balsarite (and Coverite) went to the Olympics and won a silver medal in rowing. The boat's deck was covered with both of these products.



## COVERITE

**Coverite GLASKOTE** is a clear liquid that goes over any painted surface and produces a high gloss finish that is fuel resistant. No mixing, no short pot life, and almost no odor with this convenient brush or spray one step finish. It is compatible with all paints (epoxies, urethanes, butyrates, nitrates, enamels, lacquers, etc.). One final coat of Glaskote over your favorite brand of paint will transform it to a beautiful high gloss. Use Glaskote thinner to achieve desired consistency.

CCV6000C	COVERITE BALSARITE 8 OZ	3.50	2.95	350
CCV60016	COVERITE BALSARITE-PINT 16 OZ	6.50	5.50	350
CCV61008	COVERITE GLASKOTE 1/2 PT.	3.20	2.95	350
CCV61016	COVERITE GLASKOTE THINNER 1 PT	2.90	2.75	350



### PAINT & CATALYST

The easiest to apply and most durable EPOXY PAINT AVAILABLE—The "Ultimate Finish"

A development of the space age, Super Poxy Paint is formulated exclusively for models... mix and use (NO WAITING TIME — NO HAND RUBBING). Fast curing. Quick drying. Sets up rapidly. Minimum dust adherence. Stays glossy longer. Least affected by ultra-violet sun rays or manufactured fuels.

#### 11 BASIC COLORS

— SPRAY OR BRUSH —

Red • Blue • Yellow • Orange  
• White • Black • Aluminum • Metallic  
Green • Metallic Blue • Metallic Red  
• our own K & B Purple • All above  
packed in 1/4 Pt. or 1/2 Pt. cans  
plus 22 ADDITIONAL COLORS  
available by mixing.



#### CATALYSTS

- **SPRAYING** —Satin or Gloss  
—1/4 Pt. or 1/2 Pt.
- **BRUSHING** —Satin or Gloss  
—1/4 Pt. or 1/2 Pt.

- **CLEAR** • **PRIMER**
- **PRIMER CATALYST**

1/2 Pt. only

#### • THINNER

For use with K & B SUPER POXY—  
Pints or Quarts



#### K & B FIBERGLAS —for covering

The highest quality, toughest weave—fiberglass available. For use with polyester or epoxy resin. Excellent contouring qualities make it easy to apply to compound curves.

Available in 3 weights — 38" wide —  
**LIGHT 3/4 OZ. CLOTH.** For all wood air-

planes—cover 100%.  
**MEDIUM 2 OZ. CLOTH.** For increasing structural strength around fillets, nose, or interior of plane.  
**HEAVY 6 OZ. CLOTH.** For joining wings or molding your own parts.



#### K & B SUPER POXY RESIN —for sealing and applying glass cloth

Created to include all the characteristics desirable in a resin and its application. **Easily workable:** Requires minimum sanding. Little, if any, clogging of sandpaper. Curing time adjustable by the amount of catalyst.

**Durable:** Does not become brittle  
1 QT. CAN (including catalyst)

Extra catalyst for resin - No. 8151

## K & B SUPERPOXY

K&B68110	SUPERPOXY 8 OZ 8110 CLEAR	4.50	4.15	350
K&B68111	SUPERPOXY 8 OZ 8111 WHITE	4.50	4.15	350
K&B68112	SUPERPOXY 8 OZ 8112 INT ORANGE	4.50	4.15	350
K&B68113	SUPERPOXY 8 OZ 8113 RED	4.50	4.15	350
K&B68114	SUPERPOXY 8 OZ 8114 BLACK	4.50	4.15	350
K&B68115	SUPERPOXY 8 OZ 8115 BLUE	4.50	4.15	350
K&B68116	SUPERPOXY 8 OZ 8116 YELLOW	4.50	4.15	350
K&B68117	SUPERPOXY 8 OZ 8117 PRIMER	4.50	4.15	350
K&B68118	SPXY 8 OZ 8118 SPRAY GLOSS CAT	4.50	4.15	350
K&B68119	SUPERPOXY 8 OZ 8119 PRIMER CAT	4.50	4.15	350
K&B68120	SUPERPOXY PINT 8120 THINNER	4.50	4.15	350
K&B68121	SUPERPOXY QUART 8121 THINNER	6.75	6.10	350
K&B68122	SPXY 8 OZ 8122 SPRAY SATIN CAT	4.50	4.15	350
K&B68123	SUPERPOXY 8 OZ 8123 METL GREEN	4.50	4.15	350
K&B68124	SUPERPOXY 8 OZ 8124 METL BLUE	4.50	4.15	350
K&B68125	SPXY 8 OZ 8125 BRUSH GLOSS CAT	4.50	4.15	350
K&B68126	SPXY 8 OZ 8126 BRUSH SATIN CAT	4.50	4.15	350
K&B68127	SUPERPOXY 8 OZ 8127 PURPLE	4.50	4.15	350
K&B68128	SUPERPOXY 8 OZ 8128 MET. RED	4.50	4.15	350
K&B68129	SUPERPOXY 8 OZ 8129 ALUMINUM	4.50	4.15	350
K&B68130	SUPERPOXY POLYESTER RESIN 1 QT	8.25	7.45	350
K&B68131	K&B 8151 RESIN CATALYST 1/2 OZ	1.50	1.45	350
K&B68132	K&B 8160 FIB CLOTH LT 3/4 OZ.	4.25	3.90	350
K&B68133	K&B 8161 FIB CLOTH MED 2 OZ.	4.25	3.90	350
K&B68134	K&B 8162 FIB CLOTH HEV 6 OZ.	4.25	3.90	350
K&B68135	K&B MICROC-BALLOONS 2.45 OZ	2.25	2.15	350
K&B68136	K&B MEASURING/MIXING CUPS - 24	1.50	1.40	350
K&B68137	SUPERPOXY COLOR MIXING CHART	.50	.45	350

#### K & B Micro-Balloons FILLER—

Mixed with K & B Resin is perfect for fillets or filling in defects (or repairing later damage). Sands beautifully to a smooth, strong hard finish.  
1 OZ. CARTON



#### K & B MEASURING/MIXING CUPS

Twenty-four one ounce, unbreakable plastic cups. Epoxy resin and most model and craft cements will not adhere. Accurately graduated, from milliliters to fluid ounces.

Cat. No. 8172. 24 to Package

## MIDWEST

### STYROMATE



Now you can get a beautiful, tough finish on your foam airplane with this unique, new sealer. It provides a protective skin to the foam, yet adds little weight. Styromate brushes on easily and fills the pores thoroughly. It dries in 4 to 6 hours. And the sealer has a unique color change indicating when it is dry. Then all you do is sand off the excess. Styromate sands easily. Styromate is easy to touch up. For best results, mix Midwest's new Styromate thinner with the sealer and give it a final wash coat. Neither the thinner nor the sealer attack foam. Now it's ready for your favorite urethane or epoxy spray finish. The Styromate set is safe, too. It's fuel proof, non-toxic when dry and virtually odorless.

MID31016	MIDWEST STYROMATE 16 OZ.	7.95	6.95	350
MID31108	MIDWEST STYROMATE THINNER 8 OZ	2.50	2.25	350

## PRATHER

### Micro-Balloons

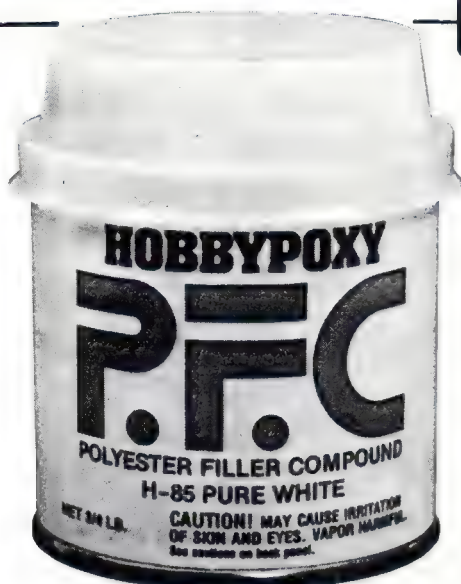


Both Prather's Phenolic Micro-Balloons and Miracle Micro-Balloons are very strong, smooth, easy to sand, and will not crack. When mixed with polyester resin or epoxy, they are great for filling gaps, dents, fixing wing tips, etc. The Miracle Micro-Balloons pour easily and are snow white in color. The Phenolic Micro-Balloons can easily be scooped up with a knife blade, and are brown in color.

PR21020	PRATHER 7000 MICRO BALLCONS	2.69	2.55	350
PR21030	701C MIRACLE MICRO BALLCONS	2.29	2.20	350



# HOBBYPOXY



## IF YOU BUILD FIBERGLASS MODELS, YOU NEED PFC

A brilliant white polyester resin in putty form, PFC is made for levelling dents, dips, ripples, chips and other imperfections in fiberglass parts. PFC is non-sagging, fast setting, and feathers out to zero thickness without peeling or flaking. It can be filed, drilled and sanded, and it's completely fuel proof. Use PFC for filling, repairing, reinforcing, bonding, shaping and making fillets. If you build anything made of fiberglass, you need PFC.

## brush or spray a flawless finish

You can brush or spray a flat or gloss finish with any Hobbypoxy color just by mixing it with the proper Hobbypoxy Hardener.

● H-02 Gloss, the good old reliable all-purpose hardener. It's perfect for brushing because it cures just slow enough to allow the brush marks to flow out. It's also very good for spraying for the same reason . . . orange peel flows out, leaving a glass smooth surface.

● H-06 Quick-Spray is the hardener to use if you've got dust problems in your shop. Although it takes the same time as the other hardeners to cure completely, it dries dust-free in just a few minutes, keeping dog hairs and balsa dust from ruining your finish. We don't recommend using Quick-Spray for brushing, except for very small trim areas.

● H-05 Flat Hardener is *the* thing for military scale models. It's so flat you won't believe it. In fact, some guys mix a little gloss hardener in with it to get a more realistic sheen on their scale jobs. Flat dries dust-free even faster than Quick-Spray, and really should be sprayed, although brushing is possible.

**FILLER.** A tough air-drying compound designed to fill wood grain, Filler gives a hard base for Hobbypoxy's high-gloss finish. Thinned as directed and flowed on smoothly, Filler is easy to sand.

**STUFF.** A fine-grained air-drying repair and filling material. Use it as it comes from the can for filling small nicks and pinholes. Thin to brushing or spraying consistency for an easy-to-sand filler. Not as strong as FILLER, but good for low stress areas.

**WHITE UNDERCOATER.** A two-part-mix filler and primer, to be mixed with H-02 or H-06 hardeners. Superior adhesion to wood, metal, plastic. Does not shrink, remains flexible, produces the toughest base for HOBBYPOXY enamels. Can be brushed or sprayed, easy to sand with wet-or-dry used wet. Because it's so highly pigmented, it covers well and fills fast. Two coats should do it.

**HOBBYPOXY ENAMELS.** Two coats will give you a super-shiny, fuelproof, waterproof, abrasion-resistant finish that stays flexible and

won't chip, peel, or crack. Hobbypoxy enamels can be brushed or sprayed, and when mixed with the proper hardeners will produce high-gloss or flat finishes. METALLIC COLORS are now available by adding HOBBYPOXY CUSTOM METALIZER to any standard color.

**HOBBYPOXY THINNER.** For thinning and reducing all Hobbypoxy finishing products, and for general cleanup. Hobbypoxy Thinner is the only reducing agent for use with Hobbypoxy enamels.

HCB60800	HOBBYPOXY	PFC FILLER 1/2 PT.	3.00	2.75	351
HCB60802	HOBBYPOXY	■ CZ H-02 GLOSS 'B'	3.75	3.45	351
HCB60805	HOBBYPOXY	■ CZ H-05 FLAT 'B'	3.75	3.45	351
HCB60806	HOBBYPOXY	■ CZ H-06 SPRGLS 'B'	3.75	3.45	351
HCB60808	HOBBYPOXY	■ CZ H-08 CLEAR	3.75	3.45	351
HCB60810	HOBBYPOXY	■ CZ H-10 WHITE	3.75	3.45	351
HCB60819	HOBBYPOXY	■ CZ H-19 UNDERCOAT	3.75	3.45	351
HCB60824	HOBBYPOXY	■ CZ H-24 DARK BLUE	3.75	3.45	351
HCB60826	HOBBYPOXY	■ CZ H-26 LIGHT BLUE	3.75	3.45	351
HCB60833	HOBBYPOXY	■ CZ H-33 STIN GREEN	3.75	3.45	351
HCB60847	HOBBYPOXY	■ CZ H-47 BR. YELLOW	3.75	3.45	351
HCB60849	HOBBYPOXY	■ CZ H-49 CUB YELLOW	3.75	3.45	351
HCB60850	HOBBYPOXY	■ CZ H-50 STUFF	1.75	1.65	351
HCB60856	HOBBYPOXY	■ CZ H-56 INT ORANGE	3.75	3.45	351

HCB60865	HOBBYPOXY	■ CZ H-65 BRIGHT RED	3.75	3.45	351
HCB60866	HOBBYPOXY	■ CZ H-66 DARK RED	3.75	3.45	351
HCB60870	HOBBYPOXY	■ CZ H-70 GRAY	3.75	3.45	351
HCB60879	HOBBYPOXY	■ CZ H-79 UNDERCOAT GRAY	3.75	3.45	351
HCB60881	HOBBYPOXY	■ CZ H-81 BLACK	3.75	3.45	351
HCB60890	HOBBYPOXY	■ CZ H-90 FILLER	1.75	1.65	351
HCB60893	HOBBYPOXY	■ CZ H-93 SILVER	3.75	3.45	351
HCB60899	HOBBYPOXY	■ CZ H-99 METALIZER	3.75	3.45	351
HCB61607	HOBBYPOXY	PINT H-07 THINNER	2.50	2.35	351
HCB61690	HOBBYPOXY	PINT H-90 FILLER	3.00	2.75	351
HCB63207	HOBBYPOXY	QUART H-07 THINNER	3.75	3.45	351
HCB63280	HOBBYPOXY	QUART H-80 RESIN	7.50	6.75	351
HCB69C00	HOBBYPOXY	TAC RAG	.75	.70	351



# PAINT & PAINTING ACCESSORIES

## MILLER

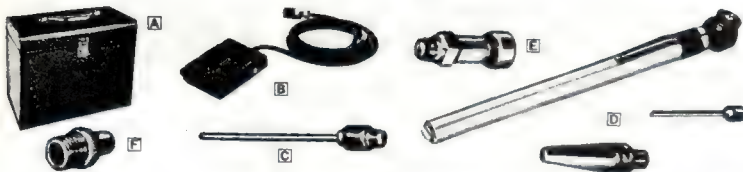
## MODEL 2000 AIR COMPRESSOR

Precision built genuine piston type Air Compressor with finely machined aluminum cylinder and close tolerance piston as the heart of this rugged unit. The V-belt drive is powered by a powerful 1/8 H.P. 110V motor (220V motor available). The Miller Air Compressor is designed to maintain a continuous .6 CFM flow of air at 20-25 lbs. pressure. Self lubricated bronze bearings are used throughout to give maintenance free use.

## COMPLETE SPRAYING SETS

- 2134** Complete handyman/hobbyist spray set including air compressor, 12 ft. hose, 18G pressure type (internal mix) gun, 16G siphon type (external mix) gun, 14G air brush, air chuck and football needle.
- 2018** Spray set including air compressor, air hose, 18G pressure type (internal mix) spray gun complete with round and fan nozzles, air chuck and football needle.
- 2017** Spray set including air compressor, air hose, 16G siphon type (external mix) spray gun and 14G air brush, air chuck and football needle.

AB-100 shading brush kit



MLL62000	MILLER #2000 COMPRESSOR	81.95	57.35	352
MLL62017	MILLER #2017 SPRAY SET	95.95	63.95	352
MLL62018	MILLER #2018 SPRAY SET	94.95	72.95	352
MLL62040	MILLER #9040 METAL STORAGE BOX	19.95	16.45	352
MLL62060	MILLER #9060 FCOT SWITCH	19.95	16.45	352
MLL62085	MILLER #9080 INFLATOR KIT	5.45	4.90	352
MLL62090	MILLER #9090 ADJ. PRESS. VALVE	5.45	4.90	352
MLL62091	MILLER #9091 HOSE ADAPTOR	3.25	3.00	352
MLL62100	MILLER #AB-100 BRUSH KIT	10.95	9.30	352
MLL62134	MILLER #2134 SPRAY SET	109.95	72.95	352
MLL62140	MILLER #14G SPRAY GUN	9.95	8.45	352
MLL62160	MILLER #16G SPRAY GUN	12.95	10.95	352
MLL62180	MILLER #18G SPRAY GUN	19.95	16.45	352
MLL62381	MILLER #1380 AIR HOSE	5.45	4.90	352

- A Model 9040** — Metal storage and carrying case—for air compressor, hose and spray gun.
- B Model 9060** — 110/220V foot control switch—provides easy remote control operation of compressor; allows operator to turn unit on or off as required.
- C Model 9070** — Air gun—handy for blowing dust off of objects to be painted. Also used by ceramacists to remove the mold from green ceramic ware.
- D Model 9080** — Inflator kit—Equips your basic paint spraying air compressor for these other common chores: blowing out pipes—inflating toys—inflating tires—inflating air mattresses—inflating footballs, basketballs, etc.—recharging air chamber (well water system). The inflator kit has air chuck, football needle and tire gauge.
- E Model 9090** — Adjustable relief valve—used with commercial air brushes to regulate maximum air pressure.
- F Model 9091** — 1/4" pipe thread adapter—adapts compressor to commercial air brush hoses.

**NO. 1380 AIR HOSE** for use with AB100 Air Brush or with AB200 Air Brush where compressor is equipped with adjustable relief valve. Individually packaged.

## MODEL AB100 AIR BRUSH

A 4 piece bleeder type air brush kit that includes the air brush with fine spray nozzle with 2 1/2 oz. material jar, coarse spray nozzle and 2 material storage jars. Operates from Miller No. 2000 Air Compressor or other comparable air supply. Cannot be used with aerosol propellant.



**MODEL NO. 18-G**

**Pressure type (internal mix) spray gun**

Designed for spraying of heavy bodied, slow drying materials; enamel, latex paint, varnish, etc. Comes with Round and Fan nozzles for general purpose spraying.

**MODEL NO. 16-G**

**Siphon type (external mix) spray gun**

Designed for light bodied, quick drying materials; lacquer, airplane dope, ceramic finishes, shellac, color photo finish coating, shoe dye, fabric treatment, moth proofing, water repellent, insecticide, garden & tree spray, bug repellent, detergents. Includes Open and Fine spray nozzles.



**MODEL NO. 14-G**

**Siphon type (external mix) air brush**

Designed for small delicate spraying of the above materials; art work, photo shading, model finishing, ceramic finishing, floral effects, bakery decoration, furniture touch-up, automobile touch-up. Airbrush equipped with Open and Fine spray nozzles.



## Formula-U POLYURETHANE FUEL PROOF FINISH FOR GAS POWERED MODELS



**CHARACTERISTICS:** Designed to withstand the rugged treatment gas powered models must endure.

- TOUGH, LIGHTWEIGHT, MAR-RESISTANT FINISH
- FUEL PROOF—NOT AFFECTED BY WATER, CHEMICALS OR ALCOHOL AND WITHSTANDS RACING FUELS UP TO 50% NITRO METHANE
- ONE-COMPONENT SYSTEM—REQUIRES NO CATALYST
- LOW ODOR
- QUICK DRYING—DUST FREE IN 45 MINUTES, DRIES HARD IN 4 HOURS
- WILL NOT WRINKLE OR LIFT WHEN RECOATED
- FREE OF LEAD HAZARDS—NON-TOXIC WHEN DRY
- SPRAY CONTAINS NO FLUOROCARBON PROPELLENTS
- BRUSHES EASILY WITHOUT BRUSH MARKS

**APPLICATIONS:** Applies to any paintable surface. Since Formula-U does not shrink silkspan or silk products, it is recommended that Aero-Gloss Flat or Gloss Clear be applied first, then topcoated with Formula-U. Brushing Formula-U can be thinned for spray gun application. Colors can be mixed. Use Formula-U Thinner for thinning and clean-up.

**SIZES:** 4 oz. Jar, 1/2 pint Can, 12 oz. Spray Can.

**COLORS:** Brushing and Spray in choice of Hi-Gloss, Metallic and Flat. \*Perfectly match 12 Solarfilm colors.

- \*RAVEN BLACK
- \*POLAR WHITE
- \*DARK RED
- \*AVIATION YELLOW
- \*MIDNITE BLUE
- \*JUNGLE GREEN
- \*FIERY ORANGE
- \*FLIGHT ALUMINUM
- \*BRIGHT RED
- \*TROPIC BLUE
- \*METALLIC RED
- \*METALLIC GREEN
- \*METALLIC GOLD
- FLAT OLIVE DRAB
- FLAT CAMOUFLAGE TAN
- FLAT BLACK
- FLAT WHITE
- CLEAR

PAC60090	FORMULA U 20090 8 OZ BLACK	3.29	3.10	353
PAC60091	FORMULA U 20091 8 OZ WHITE	3.29	3.10	353
PAC60092	FORMULA U 20092 8 OZ DK RED	3.29	3.10	353
PAC60093	FORMULA U 20093 8 OZ YELLOW	3.29	3.10	353
PAC60094	FORMULA U 20094 8 OZ CK BLUE	3.29	3.10	353
PAC60095	FORMULA U 20095 8 OZ GREEN	3.29	3.10	353
PAC60096	FORMULA U 20096 8 OZ ORANGE	3.29	3.10	353
PAC60097	FORMULA U 20097 8 OZ ALUMINUM	3.29	3.10	353
PAC60098	FORMULA U 20098 8 OZ BRT RED	3.29	3.10	353
PAC60099	FORMULA U 20099 8 OZ LT BLUE	3.29	3.10	353
PAC60100	FORMULA U 20100 8 OZ MET RED	3.29	3.10	353
PAC60101	FORMULA U 20101 8 OZ MET GREEN	3.29	3.10	353
PAC60102	FORMULA U 20102 8 OZ MET GOLD	3.29	3.10	353
PAC60103	FORMULA U 20103 8 OZ FL. D.D.	3.29	3.10	353
PAC60104	FORMULA U 20104 8 OZ FL. TAN	3.29	3.10	353
PAC60105	FORMULA U 20105 8 OZ FL. BLACK	3.29	3.10	353
PAC60106	FORMULA U 20106 8 OZ FL. WHITE	3.29	3.10	353
PAC60107	FORMULA U 20107 8 OZ CLEAR	3.29	3.10	353
PAC60110	FORM U 20110 12 OZ SP BLACK	3.29	3.10	353
PAC60111	FORM U 20111 12 OZ SP WHITE	3.29	3.10	353
PAC60112	FORM U 20112 12 OZ SP DK RED	3.29	3.10	353
PAC60113	FORM U 20113 12 OZ SP YELLOW	3.29	3.10	353
PAC60114	FORM U 20114 12 OZ SP DK BLUE	3.29	3.10	353
PAC60115	FORM U 20115 12 OZ SP GREEN	3.29	3.10	353
PAC60116	FORM U 20116 12 OZ SP ORANGE	3.29	3.10	353
PAC60117	FORM U 20117 12 OZ SP ALUMINUM	3.29	3.10	353
PAC60118	FORM U 20118 12 OZ SP BR RED	3.29	3.10	353
PAC60119	FORM U 20119 12 OZ SP LT BLUE	3.29	3.10	353
PAC60120	FORM U 20120 12 OZ SP MET GRN	3.29	3.10	353
PAC60121	FORM U 20121 12 OZ SP MET GOLD	3.29	3.10	353
PAC60122	FORM U 20122 12 OZ SP FL O.C.	3.29	3.10	353
PAC60123	FORM U 20123 12 OZ SP FL TAN	3.29	3.10	353
PAC60124	FORM U 20124 12 OZ SP FL BLACK	3.29	3.10	353
PAC60125	FORM U 20125 12 OZ SP FL WHITE	3.29	3.10	353
PAC60126	FORM U 20126 12 OZ SP CLEAR	3.29	3.10	353
PAC60127	FORM U 20127 12 OZ SP CLEAR	3.29	3.10	353
PAC60130	FORM U 20130 THINNER 1/2 PT.	1.85	1.75	353
PAC60131	FORM U 20131 THINNER 1 PT.	2.69	2.55	353
PAC63004	AERCGLOSS 30-4 FLAT BLACK	1.55	1.45	353
PAC63104	AERCGLOSS 31-4 FLAT WHITE	1.55	1.45	353
PAC63404	AERCGLOSS 34-4 FLAT OLIVE DRAB	1.55	1.45	353

## PACTRA Aero-Gloss



hot  
fuel  
proof  
dope

In fact, over 36 colors... in both hi-gloss and flat finishes. You can choose brush or spray in eight convenient sizes. BUT the colors are not the whole story. For over 26 years Pactra's Aero-Gloss Dope has been used by more "Award Winning" modelers than any other brand. WHY? **DEPENDABILITY.** A consistently durable hot fuel proof finish that holds up under the rugged handling a flying model must endure. Aero-Gloss looks good when you put it on, and stays looking good... that's a pretty important story for your pride and joy!

In the Aerogloss descriptions below the first two digits are the color number and the number after the dash is the size: 4=4 oz. can, 8=8 oz. can, 16=16 oz. can, and 16S=16 oz. spray can.

PAC63604	AERCGLOSS 36-4 FLAT CLOUD GRAY	1.55	1.45	353
PAC63704	AERCGLOSS 37-4 FLAT CRMT GREEN	1.55	1.45	353
PAC63804	AERCGLOSS 38-4 FLAT LGHT EARTH	1.55	1.45	353
PAC63904	AERCGLOSS 39-4 FLAT DARK EARTH	1.55	1.45	353
PAC64004	AERCGLOSS 40-4 FLAT CLEAR	1.55	1.45	353
PAC64308	AERCGLOSS THINNER 8 OZ.	2.10	2.00	353
PAC64316	AERCGLOSS THINNER 16 OZ.	3.10	2.85	353
PAC64332	AERCGLOSS THINNER 32 OZ.	4.70	4.30	353
PAC65008	AERCGLOSS 50-8 SILVAIRE ALUM	2.95	2.80	353
PAC65061	AERCGLOSS 50-16S SILVAIRE ALUM	3.29	3.10	353
PAC65108	AERCGLOSS 51-8 CUB YELLOW	2.95	2.80	353
PAC65161	AERCGLOSS 51-16S CUB YELLOW	3.29	3.10	353
PAC65208	AERCGLOSS 52-8 CUB ORANGE	2.95	2.80	353
PAC65261	AERCGLOSS 52-16S CUB ORANGE	3.29	3.10	353
PAC65308	AERCGLOSS 53-8 STEARMAN RED	2.95	2.80	353
PAC65361	AERCGLOSS 53-16S STEARMAN RED	3.29	3.10	353
PAC65408	AERCGLOSS 54-8 FOKKER RED	2.95	2.80	353
PAC65461	AERCGLOSS 54-16S FOKKER RED	3.29	3.10	353
PAC65704	AERCGLOSS 57-4 CESSNA GREEN	1.55	1.45	353
PAC65861	AERCGLOSS 58-16S STINSON GREEN	3.29	3.10	353
PAC66108	AERCGLOSS 61-8 CURTIS BLUE	2.95	2.80	353
PAC66161	AERCGLOSS 61-16S CURTIS BLUE	3.29	3.10	353
PAC66208	AERCGLOSS 62-8 CORSAIR BLUE	2.95	2.85	353
PAC66261	AERCGLOSS 62-16S CORSAIR BLUE	3.29	3.10	353
PAC66308	AERCGLOSS 63-8 JET BLACK	2.95	2.85	353
PAC66361	AERCGLOSS 63-16S JET BLACK	3.29	3.10	353
PAC66408	AERCGLOSS 64-8 SWIFT WHITE	2.95	2.85	353
PAC66416	AERCGLOSS 64-16 SWIFT WHITE	4.55	4.20	353
PAC66461	AERCGLOSS 64-16S SWIFT WHITE	3.29	3.10	353
PAC66504	AERCGLOSS 65-4 CLEAR	1.55	1.45	353
PAC66516	AERCGLOSS 65-16 CLEAR	4.55	4.20	353
PAC66532	AERCGLOSS 65-32 CLEAR	7.00	6.30	353
PAC66561	AERCGLOSS 65-16S CLEAR	3.29	3.10	353
PAC66604	AERCGLOSS 66-4 ARMY CLIVE DRAB	1.55	1.45	353
PAC67008	AERCGLOSS 70-8 Balsa FILERCOAT	2.95	2.85	353
PAC67108	AERCGLOSS 71-8 SANCING SEALER	2.95	2.85	353
PAC67208	AERCGLOSS 72-8 BUNANZA BLUE	2.95	2.85	353
PAC68108	AERCGLOSS 81-8 METALLIC BLUE	2.95	2.85	353
PAC68161	AERCGLOSS 81-16S METALLIC BLUE	3.29	3.10	353
PAC68204	AERCGLOSS 82-4 METALLIC GREEN	1.55	1.45	353
PAC68704	AERCGLOSS 87-4 FUEL PROOFER	1.55	1.45	353
PAC68761	AERCGLOSS 87-16S FUEL PROOFER	3.29	3.10	353
PAC68861	AERCGLOSS 88-16S CANDY RED	3.29	3.10	353
PAC68961	AERCGLOSS 89-16S CANDY ORANGE	3.29	3.10	353
PAC69061	AERCGLOSS 90-16S CANDY PURPLE	3.29	3.10	353
PAC69161	AERCGLOSS 91-16S CANDY YELLOW	3.29	3.10	353



# PAINT & PAINTING ACCESSORIES



PERFECT GLOSSY

**Mirror-Finish Perfect Paint Available in Spray & Regular Cans**

"Perfect" paint will give a professional finish to new ready-to-fly aircraft or brighten up old models.

## R & S

- Fuel-Proof
- Mar Resistant
- Dries to Touch in 6-8 Hours
- Excellent Flow
- Excellent Adhesion
- Dust Free 1/2 Hour
- Covers Most Hobby Sealers
- Does Not Affect Styrofoam
- Virtually Odorless
- Will Not Blush

For Perfect results use with:  
**PERFECT THINNER**

with "Easy-Pour Spout"



PERFECT CAMOUFLAGE

**Authentic USAAF, RAF, RCAF, German, Japanese, Israel & Egyptian Camouflage Colors**

Make your warbirds really authentic! These camouflage paints duplicate almost perfectly the colors used on warbirds from World War II to the Israel War.

**NEW!!** Balsa and foam filler fills very well and leaves a smooth surface after sanding with 280 or 320 grit paper. Fills both balsa and foam in one coat in most instances.

R+S60008	R+S FOAM & Balsa Filler 8 Oz.	2.99	2.85	354	R+S60846	R+S PC-46 8 Oz LUCK BLUE	3.49	3.35	354
R+S60016	R+S FOAM & Balsa Filler 16 Oz.	4.99	4.75	354	R+S61201	R+S 12 Oz SPRAY #P-01 RED	3.99	3.80	354
R+S60100	R+S SPONGE BRUSH 1 IN. WIDE	.40	.35	354	R+S61202	R+S 12 Oz SPRAY #P-02 LT BLUE	3.99	3.80	354
R+S60200	R+S SPONGE BRUSH 2 IN. WIDE	.60	.55	354	R+S61203	R+S 12 Oz SPRAY #P-03 RYL BLUE	3.99	3.80	354
R+S60801	R+S PAINT 8 Oz RED #P-01	3.49	3.35	354	R+S61204	R+S 12 Oz SPRAY #P-04 YELLOW	3.99	3.80	354
R+S60802	R+S PAINT 8 Oz LIGHT BLUE P-02	3.49	3.35	354	R+S61205	R+S 12 Oz SPRAY #P-05 ORANGE	3.99	3.80	354
R+S60803	R+S PAINT 8 Oz ROYAL BLUE P-03	3.49	3.35	354	R+S61206	R+S 12 Oz SPRAY #P-06 LT GREEN	3.99	3.80	354
R+S60804	R+S PAINT 8 Oz YELLOW #P-04	3.49	3.35	354	R+S61207	R+S 12 Oz SPRAY #P-07 SP GREEN	3.99	3.80	354
R+S60805	R+S PAINT 8 Oz CRANGE #P-05	3.49	3.35	354	R+S61208	R+S 12 Oz SPRAY #P-08 PURPLE	3.99	3.80	354
R+S60806	R+S PAINT 8 Oz LT. GREEN #P-06	3.49	3.35	354	R+S61209	R+S 12 Oz SPRAY #P-09 BLACK	3.99	3.80	354
R+S60808	R+S PAINT 8 Oz PURPLE #P-08	3.49	3.35	354	R+S61210	R+S 12 Oz SPRAY #P-10 WHITE	3.99	3.80	354
R+S60809	R+S PAINT 8 Oz BLACK #P-09	3.49	3.35	354	R+S61211	R+S 12 Oz SPRAY #P-11 ALUMINUM	3.99	3.80	354
R+S60810	R+S PAINT 8 Oz WHITE #P-10	3.49	3.35	354	R+S61212	R+S 12 Oz SPRAY #P-12 FL BLACK	3.99	3.80	354
R+S60811	R+S PAINT 8 Oz ALUMINUM #P-11	3.49	3.35	354	R+S61213	R+S 12 Oz SPRAY #P-13 FL WHITE	3.99	3.80	354
R+S60812	R+S PAINT 8 Oz FLAT BLACK P-12	3.49	3.35	354	R+S61214	R+S 12 Oz SPRAY #P-14 CLEAR	3.99	3.80	354
R+S60813	R+S PAINT 8 Oz FLAT WHITE P-13	3.49	3.35	354	R+S61215	R+S 12 Oz SPRAY #P-15 FL SATIN	3.99	3.80	354
R+S60814	R+S PAINT 8 Oz CLEAR #P-14	3.49	3.35	354	R+S61216	R+S 12 Oz SPRAY #P-16 GRAY	3.99	3.80	354
R+S60815	R+S PAINT 8 Oz FLAT SATIN P-15	3.49	3.35	354	R+S61231	R+S 12 Oz SPRAY PC-31 TAN	3.99	3.80	354
R+S60831	R+S PC-31 8 Oz TAN	3.49	3.35	354	R+S61232	R+S 12 Oz SPRAY #PC-32 #10LSTN	3.99	3.80	354
R+S60832	R+S PC-32 8 Oz MIDDLESTONE	3.49	3.35	354	R+S61233	R+S 12 Oz SPRAY PC-33 DK EARTH	3.99	3.80	354
R+S60833	R+S PC-33 8 Oz DARK EARTH	3.49	3.35	354	R+S61234	R+S 12 Oz SPRAY PC-34 LT BLUE	3.99	3.80	354
R+S60834	R+S PC-34 8 Oz LT. BLUE	3.49	3.35	354	R+S61235	R+S 12 Oz SPRAY PC-35 AZUR BLU	3.99	3.80	354
R+S60835	R+S PC-35 8 Oz ASURE BLUE	3.49	3.35	354	R+S61236	R+S 12 Oz SPRAY PC-36 GREY	3.99	3.80	354
R+S60836	R+S PC-36 8 Oz GREY	3.49	3.35	354	R+S61237	R+S 12 Oz SPRAY PC-37 NAT GRAY	3.99	3.80	354
R+S60837	R+S PC-37 8 Oz NATURAL GRAY	3.49	3.35	354	R+S61238	R+S 12 Oz SPRAY PC-38 LT GREY	3.99	3.80	354
R+S60838	R+S PC-38 8 Oz LT SL GRAY	3.49	3.35	354	R+S61239	R+S 12 Oz SPRAY PC-39 DK GREY	3.99	3.80	354
R+S60839	R+S PC-39 8 Oz DK SL GRAY	3.49	3.35	354	R+S61240	R+S 12 Oz SPRAY PC-40 DK GREEN	3.99	3.80	354
R+S60840	R+S PC-40 8 Oz DARK GREEN	3.49	3.35	354	R+S61241	R+S 12 Oz SPRAY PC-41 NAVY GRN	3.99	3.80	354
R+S60841	R+S PC-41 8 Oz NAVY GREEN	3.49	3.35	354	R+S61242	R+S 12 Oz SPRAY PC-42 OLIV DRB	3.99	3.80	354
R+S60842	R+S PC-42 8 Oz CLIVE DRAB	3.49	3.35	354	R+S61243	R+S 12 Oz SPRAY PC-43 FL CLEAR	3.99	3.80	354
R+S60844	R+S PC-44 8 Oz SEA BLUE	3.49	3.35	354	R+S61600	R+S PAINT THINNER PINT	2.99	2.85	354
R+S60845	R+S PC-45 8 Oz INTERNATL BLUE	3.49	3.35	354	R+S63200	R+S PAINT THINNER QUART	3.99	3.80	354

## SIMMONS

**ARTIST BRUSH SET #SIM69825**  
features point tipped good quality red sable brushes. Great for detail and line work. Set of 3.

**ALL PURPOSE BRUSH SET #SIM69855**

Features an assortment of 5 brushes. These flat and round ended brushes are great for painting, brushing and many other general uses.

SIM69C50	SIMMONS 1/2" CAMEL HAIR BRUSH	1.15	1.10	354
SIM69075	SIMMONS 3/4" CAMEL HAIR BRUSH	2.25	2.15	354
SIM69100	SIMMONS 1" CAMEL HAIR BRUSH	2.85	2.70	354
SIM69825	SIMMONS ARTIST BRUSH SET	2.75	2.60	354
SIM69855	SIMMONS ALL PURPOSE BRUSH SET	2.10	2.00	354

## DAVE BROWN

**FLEX-ALL**

A plasticizer for acrylic lacquer and primer and butyrate dope. In acrylic it completely eliminates cracking and spiderwebbing. Also aids in gloss retention. In dope, it helps reduce shrinking. One bottle is enough for use on several airplanes. 4 oz. bottle.

**Phenolic MICRO-BALLOONS**

An inert filler material for mixing with epoxy or polyester resin to form fillets, fill dents, holes or dings, or mold parts. By varying the Micro-Balloon to resin mixing ratio, you can make either a strong no sag glue or an easy to sand yet stable fillet material.



CBP39201	DAVE BROWN FLEX-ALL	2.95	2.80	354
CBP60100	DAVE BROWN MICRO BALLOONS	1.50	1.45	354



## Propellers and Accessories

The propeller is the device that transfers the power of the engine into the thrust needed to pull the plane through the air. Because of this, it is a very important part of your plane, yet it is too often neglected as a last-minute item. The propeller is very often chosen with little care. You just pick-up a box of props and mount them one-by-one on the plane. This does not guarantee you good performance, especially if you demand it.

The propellers, as they are made today, are probably the best that can be made within our current market restrictions. A perfect prop would probably cost several dollars per sample, and, at the rate they are broken in use, this cost is prohibitive. While the props we now get are good, there are a few things that can be done in order to make them better for our purposes.

You've heard this many times in the modeling press, but you should invest in a prop balancer, and balance each of your props. This will result in a better-running engine, longer radio life, and a plane that will tend to keep together. All of this comes from the fact that a balanced prop will cut down vibration, which detracts from all aspects of performance. We carry two such propeller balancers, and while you can find proponents who will argue the relative merits of both, they are really both good products that do a good job of balancing a prop.

When you balance a prop, you can paint the light blade or shave the heavy one. A combination of both is best. When you shave a blade, shave the top side. The top side of the prop is the side that is *AWAY* from the engine when it is mounted in a normal fashion on to the engine.

Any kind of prop can be balanced. You just trim a little off of the heavy blade. The material of the prop is important when trimming it. If you are trying to trim a wood prop, you can use a knife, saw or even sandpaper. A nylon prop is a different matter. I have found that the easiest way to trim a prop is by cutting it a little bit at the tips. This way you can keep the diameter as constant as possible.

For the ultimate in performance modification, you can make sure the pitch of your prop is where you want it. Use the Prather Prop Pitch Gauge for this. It comes with complete instructions, and will tell you how to modify your props all the way to a complete re-pitching!

SEE PAGE 132 FOR ESTES FOLDING PROPS.

## PROP SELECTION CHART

ENGINE SIZE	RECOMMENDED PROP SIZES
.049 - .051	6 x 3, 6 x 4
.09 - .10	7 x 3, 7 x 4
.15	8 x 4, 8 x 5, 8 x 6
.19 - .25	9 x 5, 9 x 6
.29	10 x 5, 10 x 6
.30 - .35	10 x 6, 10 x 7
.40	10 x 6, 10 x 7, 10 x 8
.45 - .51	11 x 5, 11 x 6
.60 - .61	11 x 7, 7 1/4, 7 1/2, 7 3/4, 8, 8 1/4
.71 - .80	12 x 4 through 14 x 6

## COX



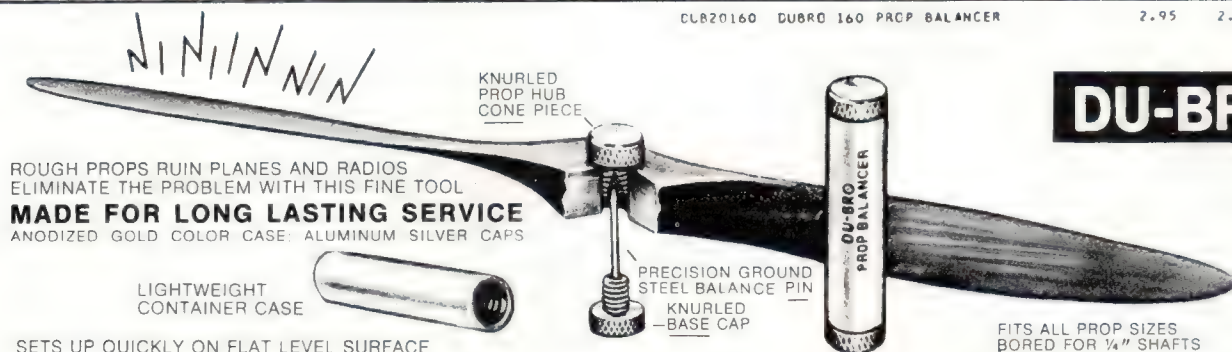
### COMPETITION GREY PROPELLERS

Cox nylon props are strong filled nylon that retain shape and pitch at high speeds. The 4" diameter is for .020's, 5" diameter for .049's, 6" diameter for .049's and .051's.

CCX17241	CCX 241 COMP. PROP 4-1/2X2	1.00	.95	355
CCX17242	CCX 242 COMP. PROP 5X3	1.00	.95	355
CCX17243	CCX 243 COMP. PROP 5-1/2X4	1.00	.95	355
CCX17244	CCX 244 COMP. PRGP 6X3	1.00	.95	355
CCX17245	CCX 245 COMP. PROP 6X4	1.00	.95	355

CLB20160 DUBRO 160 PRCP BALANCER

2.95 2.65 355



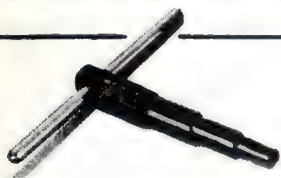
## DU-BRO



# PROPELLERS & PROP ACCESSORIES

## FOX

### PROP REAMERS

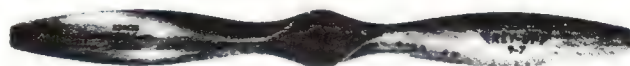


Quite often the propeller that you want to use will have a hole smaller than the shaft size on the motor you want to use it with. The Fox Reamers are designed to provide an easy, and accurate method of enlarging the hole to the next standard size shaft size without danger of splitting the propeller or getting the hole out of center. We offer two reamers—a standard reamer which would be used for 95% of applications and a KB Special, which makes a step from 1/4 inch to 3/8 in the peculiar manner that that particular engine requires. All Fox Reamers are of standard four-flute design and are fitted with a T-bar. They can be carried right in your tool box and used on the field. These are a must for the tool box of every serious modeler. The standard model has progressive steps of from 1/16 to 1/4 to 3/8 and finally 1/2. The KB model has a quarter inch pilot and cuts to 3/8.

Fox 4 Step Reamer.....70201  
Fox KB Reamer .....70202

FCX18201	FCX #70201	PROP REAMER 4-STEP	5.95	5.45	356
FCX18202	FCX #70202	PRCP REAMER KB	5.95	5.45	356

## REV-UP



Rev-Up Props are precision crafted, superbly finished, and completely fuel proofed hard maple props. They are extra high performance for those who want that little competitive edge. Available in the Pro Series which is a conventional blade cut for sport and pattern.

REV17140	REV-UP	PRCP	*PRC*	1	9X4	1.79	1.60	356
REV17142	REV-UP	PRCP	*PRC*	1	9X6	1.79	1.60	356
REV17146	REV-UP	PRCP	*PRC*	1	9X7	1.79	1.60	356
REV17152	REV-UP	PRCP	*PRC*	1	10X6	1.89	1.70	356
REV17153	REV-UP	PRCP	*PRC*	1	10X6W	1.89	1.70	356
REV17154	REV-UP	PRCP	*PRC*	1	10X6EW	1.99	1.80	356
REV17162	REV-UP	PRCP	*PRC*	1	11X6	1.99	1.80	356
REV17166	REV-UP	PRCP	*PRC*	1	11X7	1.99	1.80	356
REV17167	REV-UP	PRCP	*PRD*	1	11X7.5	1.99	1.80	356
REV17168	REV-UP	PRCP	*PRC*	1	11X7.75	1.99	1.80	356
REV17169	REV-UP	PRCP	*PRC*	1	11X8	1.99	1.80	356

## PRATHER

### Prop Pitch Gauge PRECISION MADE

FITS UP TO 12" DIA. PROPS.  
FROM 3" TO 15" OF PITCH

- \* MORE RPM
- \* MORE POWER



If you use a prop you need a prop pitch gauge. Not all props are true, one blade can be pitched different than the other blade.

You can true up both blades using the prop pitch gauge. You can also change the pitch of your prop to get maximum performance out of your prop and engine.

Complete instructions on how to use the prop pitch gauge are included, plus tips on how to get the best performance out of your prop and engine by Terry Prather.

"USED BY THE NATIONS TOP MODELERS"

### PROP BALANCER



- Accurate
- No Flat Surface Needed
- Tapered Cones Center Prop of Shaft
- Fits Most Props for Engines .049 up

PRA21010	PRATHER 3000	PROP BALANCER	2.29	2.20	356
PRA21200	PRATHER 7050	PRCP PITCH GAUGE	44.95	39.95	356

## GRISH BROS.

Grish Bros. offers three kinds of props. All new to their line is the super size wood props that are great on the 1/4 scale ships with large engines or gear reducers. Then there is the famous Tornado nylon prop that once had the distinct yellow color but now is a natural white color. They are still one of the finest polyester props made. NOTE—do NOT boil Tornado props anymore or color them. And last is the 3 blade prop—offered in three sizes and both tractor and pusher (backward from normal).

GR117022	GRISH	WOOD	PROP	18X6	7.00	6.30	356
GR117024	GRISH	WOOD	PRCP	18X8	7.00	6.30	356
GR117026	GRISH	WOOD	PRCP	18X10	7.00	6.30	356
GR117042	GRISH	WOOD	PROP	20X6	8.00	7.20	356
GR117044	GRISH	WOOD	PROP	20X8	8.00	7.20	356
GR117046	GRISH	WOOD	PRCP	20X10	8.00	7.20	356
GR117062	GRISH	WOOD	PRCP	22X6	10.00	9.00	356
GR117064	GRISH	WOOD	PRCP	22X8	10.00	9.00	356
GR117066	GRISH	WOOD	PRCP	22X10	10.00	9.00	356
GR117082	GRISH	WOOD	PRCP	24X6	13.00	11.70	356
GR117084	GRISH	WOOD	PRCP	24X8	13.00	11.70	356
GR117086	GRISH	WOOD	PRCP	24X10	13.00	11.70	356
GR117113	TCRNADO	PROP	1	ONLY 5X3	.50	.45	356
GR117114	TCRNADO	PROP	1	ONLY 5X4	.50	.45	356
GR117123	TCRNADO	PROP	1	ONLY 5-1/2X3	.50	.45	356
GR117124	TCRNADO	PROP	1	ONLY 5-1/2X4	.50	.45	356
GR117133	TCRNADO	PROP	1	ONLY 6X3	.50	.45	356
GR117134	TCRNADO	PROP	1	ONLY 6X4	.50	.45	356
GR117144	TCRNADO	PROP	1	ONLY 7X4	.60	.55	356
GR117146	TCRNADO	PROP	1	ONLY 7X6	.60	.55	356
GR117154	TCRNADO	PROP	1	ONLY 8X4	.70	.65	356
GR117156	TCRNADO	PRCP	1	ONLY 8X6	.70	.65	356
GR117158	TCRNADO	PROP	1	ONLY 8X8	.70	.65	356
GR117164	TCRNADO	PRCP	1	ONLY 9X4	.85	.80	356
GR117166	TCRNADO	PRCP	1	ONLY 9X6	.85	.80	356
GR117167	TCRNADO	PRCP	1	ONLY 9X7	.85	.80	356
GR117168	TCRNADO	PRCP	1	ONLY 9X8	.85	.80	356
GR117174	TCRNADO	PRCP	1	ONLY 10X4	.85	.80	356
GR117176	TCRNADO	PRCP	1	ONLY 10X6	.85	.80	356
GR117184	TCRNADO	PRCP	1	ONLY 11X4	1.00	.90	356
GR117186	TCRNADO	PRCP	1	ONLY 11X6	1.00	.90	356
GR117188	TCRNADO	PRCP	1	ONLY 11X8	1.00	.90	356
GR117195	TCRNADO	PRCP	1	ONLY 12X5	1.50	1.35	356
GR117196	TCRNADO	PRCP	1	ONLY 12X6	1.50	1.35	356
GR117233	TCRNADO	PRCP	3	BLADE 6X3 TRAC	.50	.45	356
GR117266	TCRNADO	PRCP	3	BLADE 9X6 TRAC	1.50	1.40	356
GR117274	TCRNADO	PRCP	3	BLADE 10X4 TRAC	1.50	1.40	356
GR117276	TCRNADO	PRCP	3	BLADE 10X6 TRAC	1.50	1.40	356
GR117333	TCRNADO	PRCP	3	BLADE 6X3 PUSH	.50	.45	356
GR117376	TCRNADO	PRCP	3	BLADE 10X6 PUSH	1.50	1.40	356
GR117403	TCRNADO	PRCP	6X3	PUSHER	.50	.45	356
GR117404	TCRNADO	PRCP	6X4	PUSHER	.50	.45	356
GR117426	TCRNADO	PRCP	8X6	PUSHER	.85	.80	356
GR117446	TCRNADO	PRCP	9X6	PUSHER	1.00	.90	356
GR117456	TCRNADO	PRCP	10X6	PUSHER	1.00	.90	356



# PROPELLERS & PROP ACCESSORIES

## A UNIQUE MULTI-USE PRECISION BALANCER

A proven balancing design used in industry, now made available for modelers use, offering many advantages over all balancers.

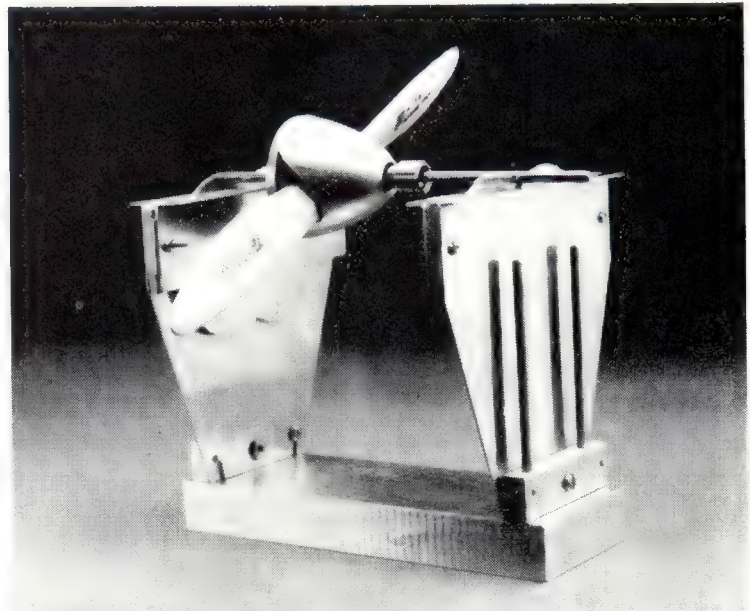
### FEATURING

- Extreme Accuracy
- No need to level balancer
- Quick mounting and dismounting of balance shaft
- One balancing shaft required to fit hole diameters from 1/8" to 3/8"
- Unique design of centering cone, movable cone can be reversed to center thin objects such as spinner back plates.
- Storage case, with storage area for tools
- Tempered aluminum cons

## HIGH POINT

## BALANCE

- PROPS
- SPINNERS
- DUCTED FAN ROTORS
- BOAT PROPS
- FLYWHEELS



HIP1710C HIGH POINT BALANCER

23.95 22.75 357

## THE ULTIMATE IN FIBER-FILLED PROPS!

Jo-Z Products is introducing the most efficient fiber-filled propeller ever manufactured. Its quality surpasses that of any prop of its kind, and the price is right. Here are just some of the outstanding features:

- TOTALLY BALANCED
- TRUE HELICAL PITCH
- NO TIP CAVITATION OR FLUTTER
- EXTREMELY TOUGH AND DURABLE
- TESTED FOR HIGH RPM

New

## JO-Z PRODUCTS

New

## The Zingali Propeller



JCZ17153	ZINGALI	PROPELLER 9X6	.99	.95	357
JCZ17163	ZINGALI	PROPELLER 10X6	1.19	1.15	357
JCZ17174	ZINGALI	PROPELLER 11X7	1.39	1.30	357
JCZ17175	ZINGALI	PROPELLER 11X7.5	1.39	1.30	357



## MASTER AIR SCREW

These props are injection molded from a classy looking, glass-filled nylon which is extremely tough and durable. Recent improvements in the molding process make the Master Airscrew the most accurately balanced and pitched prop available. They are completely fuel proof. The 9 1/2x6 prop is called the 'Magic Prop'. A very efficient design that gives high revs. Works great for Quickie 500 racing or combat.

MAA17104	MASTER	AIRSCREW	PROP 5.5X4	.65	.60	357
MAA17105	MASTER	AIRSCREW	PROP 5.5X4.5	.65	.60	357
MAA17112	MASTER	AIRSCREW	PROP 6X3	.65	.60	357
MAA17113	MASTER	AIRSCREW	PROP 6X3.5	.65	.60	357
MAA17114	MASTER	AIRSCREW	PROP 6X4	.65	.60	357
MAA17124	MASTER	AIRSCREW	PROP 7X4	.65	.60	357
MAA17126	MASTER	AIRSCREW	PROP 7X6	.65	.60	357
MAA17132	MASTER	AIRSCREW	PROP 8X4	.75	.70	357
MAA17134	MASTER	AIRSCREW	PROP 8X6	.75	.70	357
MAA17144	MASTER	AIRSCREW	PROP 9X6	.95	.90	357
MAA17154	MASTER	AIRSCREW	PROP 9.5X6	1.15	1.10	357
MAA17164	MASTER	AIRSCREW	PROP 10X6	1.15	1.10	357
MAA17165	MASTER	AIRSCREW	PROP 10X7	1.15	1.10	357
MAA17175	MASTER	AIRSCREW	PROP 11X7	1.35	1.30	357
MAA17176	MASTER	AIRSCREW	PROP 11X7.5	1.35	1.30	357



# PROPELLERS & PROP ACCESSORIES

## TOP FLITE



## TOP FLITE PROPS – THE PROPS OF CHAMPS!

*The World's Standard of Excellence*

### SUPER-M PROPS from ROCK HARD MAPLE

Rock hard maple is *hard . . . hard* enough to reduce vibration to a minimum . . . *hard* enough to let you tighten down the prop nut so it won't come lose . . . *hard* enough to make it last longer than other woods and even nylon, particularly when flying from a field covered with tall grass and stiff weeds which have a tendency to chip and splinter most wood, and nick nylon props.

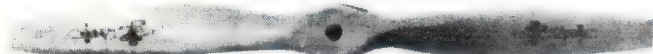
And . . . as you would expect . . . every Super M Prop has been expertly developed and designed, precision made and properly balanced to deliver maximum thrust.



TCP17365	T.F. PROP SUPER-M 1 ONLY 11x6	1.70	1.60	358
TCP17366	T.F. PROP SUPER-M 1 ONLY 11x7	1.70	1.60	358
TCP17368	T.F. PROP SUPER-M 1 ONLY 11x8	1.70	1.60	358
TCP17375	T.F. PROP SUPER-M 1 ONLY 12x6	2.00	1.90	358
TCP17395	T.F. PROP SUPER-M 1 ONLY 14x6	2.60	2.35	358
TCP17400	T.F. PROP SUPER-M 1 ONLY 16x4	8.00	6.80	358
TCP17402	T.F. PROP SUPER-M 1 ONLY 16x6	8.00	6.80	358
TCP17404	T.F. PROP SUPER-M 1 ONLY 18x6	9.00	7.65	358
TCP17406	T.F. PROP SUPER-M 1 ONLY 18x8	9.00	7.65	358
TCP17408	T.F. PROP SUPER-M 1 ONLY 18x10	9.00	7.65	358
TCP17410	T.F. PROP SUPER-M 1 ONLY 20x6	10.00	8.50	358
TCP17412	T.F. PROP SUPER-M 1 ONLY 20x8	10.00	8.50	358
TCP17414	T.F. PROP SUPER-M 1 ONLY 20x10	10.00	8.50	358
TCP17311	T.F. PROP SUPER-M 1 ONLY 6x3	1.10	1.05	358
TCP17313	T.F. PROP SUPER-M 1 ONLY 6x4	1.10	1.05	358
TCP17323	T.F. PROP SUPER-M 1 ONLY 7x4	1.25	1.20	358
TCP17333	T.F. PROP SUPER-M 1 ONLY 8x4	1.35	1.30	358
TCP17334	T.F. PROP SUPER-M 1 ONLY 8x5	1.35	1.30	358
TCP17335	T.F. PROP SUPER-M 1 ONLY 8x6	1.35	1.30	358
TCP17343	T.F. PROP SUPER-M 1 ONLY 9x4	1.40	1.35	358
TCP17344	T.F. PROP SUPER-M 1 ONLY 9x5	1.40	1.35	358
TCP17345	T.F. PROP SUPER-M 1 ONLY 9x6	1.40	1.35	358
TCP17355	T.F. PROP SUPER-M 1 ONLY 10x6	1.50	1.45	358
TCP17611	T.F. PROP POWER SM **1** 6x3	1.10	1.05	358
TCP17623	T.F. PROP POWER SM **1** 7x4	1.25	1.20	358
TCP17624	T.F. PROP POWER SM **1** 7x5	1.25	1.20	358
TCP17634	T.F. PROP POWER SM **1** 8x5	1.35	1.30	358
TCP17635	T.F. PROP POWER SM **1** 8x6	1.35	1.30	358
TCP17645	T.F. PROP POWER SM **1** 9x6	1.40	1.35	358
TCP17655	T.F. PROP POWER SM **1** 10x6	1.50	1.45	358
TCP17665	T.F. PROP POWER SM **1** 11x6	1.70	1.60	358
TCP17666	T.F. PROP POWER SM **1** 11x7	1.70	1.60	358

TCP17667	T.F. PROP POWER SM**1** 11x7.5	1.70	1.60	358
TCP17668	T.F. PROP POWER SM**1** 11x7.75	1.70	1.60	358
TCP17669	T.F. PROP POWER SM **1** 11x8	1.70	1.60	358
TCP17675	T.F. PROP POWER SM **1** 12x6	2.00	1.90	358
TCP17811	T.F. PROP SUPER-M **6** 6x3	6.60	5.60	358
TCP17813	T.F. PROP SUPER-M **6** 6x4	6.60	5.60	358
TCP17823	T.F. PROP SUPER-M **6** 7x4	7.50	6.35	358
TCP17833	T.F. PROP SUPER-M **6** 8x4	8.10	6.90	358
TCP17834	T.F. PROP SUPER-M **6** 8x5	8.10	6.90	358
TCP17835	T.F. PROP SUPER-M **6** 8x6	8.10	6.90	358
TCP17843	T.F. PROP SUPER-M **6** 9x4	8.40	7.15	358
TCP17844	T.F. PROP SUPER-M **6** 9x5	8.40	7.15	358
TCP17845	T.F. PROP SUPER-M **6** 9x6	8.40	7.15	358
TCP17855	T.F. PROP SUPER-M **6** 10x6	9.00	7.65	358
TCP17865	T.F. PROP SUPER-M **6** 11x6	10.20	8.15	358
TCP17866	T.F. PROP SUPER-M **6** 11x7	10.20	8.15	358
TCP17868	T.F. PROP SUPER-M **6** 11x8	10.20	8.15	358
TCP17875	T.F. PROP SUPER-M **6** 12x6	12.00	9.60	358
TCP17895	T.F. PROP SUPER-M **6** 14x6	15.60	12.50	358
TCP17911	T.F. PROP POWER SM **6** 6x3	6.60	5.60	358
TCP17923	T.F. PROP POWER SM **6** 7x4	7.50	6.35	358
TCP17924	T.F. PROP POWER SM **6** 7x5	7.50	6.35	358
TCP17934	T.F. PROP POWER SM **6** 8x5	8.10	6.90	358
TCP17935	T.F. PROP POWER SM **6** 8x6	8.10	6.90	358
TCP17945	T.F. PROP POWER SM **6** 9x6	8.40	7.15	358
TCP17955	T.F. PROP POWER SM **6** 10x6	9.00	7.65	358
TCP17965	T.F. PROP POWER SM **6** 11x6	10.20	8.15	358
TCP17966	T.F. PROP POWER SM **6** 11x7	10.20	8.15	358
TCP17967	T.F. PROP POWER SM**6** 11x7.5	10.20	8.15	358
TCP17968	T.F. PROP POWER SM**6** 11x7.75	10.20	8.15	358
TCP17969	T.F. PROP POWER SM **6** 11x8	10.20	8.15	358
TCP17975	T.F. PROP POWER SM **6** 12x6	12.00	9.60	358

## ZINGER



• Our propellers are designed and engineered for maximum thrust and efficiency. • No rework needed. • All props are *TRUE PITCH* and each is *BALANCED TWICE* before packaging. • All props have an airfoil cross section all the way to the tip.

ZIN17131	ZINGER PROP 1 ONLY 7x4	1.20	1.15	358
ZIN17132	ZINGER PROP 1 ONLY 7x5	1.20	1.15	358
ZIN17133	ZINGER PROP 1 ONLY 7x6	1.20	1.15	358
ZIN17141	ZINGER PROP 1 ONLY 8x4	1.30	1.25	358
ZIN17142	ZINGER PROP 1 ONLY 8x5	1.30	1.25	358
ZIN17143	ZINGER PROP 1 ONLY 8x6	1.30	1.25	358
ZIN17151	ZINGER PROP 1 ONLY 9x4	1.30	1.25	358
ZIN17152	ZINGER PROP 1 ONLY 9x5	1.30	1.25	358
ZIN17153	ZINGER PROP 1 ONLY 9x6	1.30	1.25	358
ZIN17155	ZINGER PROP 1 ONLY 9x7	1.30	1.25	358
ZIN17161	ZINGER PROP 1 ONLY 10x4	1.40	1.35	358
ZIN17162	ZINGER PROP 1 ONLY 10x5	1.40	1.35	358
ZIN17163	ZINGER PROP 1 ONLY 10x6	1.40	1.35	358
ZIN17165	ZINGER PROP 1 ONLY 10x7	1.40	1.35	358
ZIN17173	ZINGER PROP 1 ONLY 11x6	1.60	1.55	358
ZIN17175	ZINGER PROP 1 ONLY 11x7	1.60	1.55	358
ZIN17176	ZINGER PROP 1 ONLY 11x7.5	1.60	1.55	358
ZIN17177	ZINGER PROP 1 ONLY 11x7.75	1.60	1.55	358
ZIN17178	ZINGER PROP 1 ONLY 11x8	1.60	1.55	358
ZIN17181	ZINGER PROP 1 ONLY 12x4	2.40	2.25	358
ZIN17182	ZINGER PROP 1 ONLY 12x5	2.40	2.25	358
ZIN17183	ZINGER PROP 1 ONLY 12x6	2.40	2.25	358
ZIN17191	ZINGER PROP 1 ONLY 14x4	3.90	3.60	358
ZIN17192	ZINGER PROP 1 ONLY 14x5	3.90	3.60	358
ZIN17193	ZINGER PROP 1 ONLY 14x6	3.90	3.60	358
ZIN17232	ZINGER PROP 1 ONLY 16x5	8.90	7.95	358
ZIN17233	ZINGER PROP 1 ONLY 16x6	8.90	7.95	358
ZIN17238	ZINGER PROP 1 ONLY 16x8	8.90	7.95	358
ZIN17239	ZINGER PROP 1 ONLY 16x10	8.90	7.95	358
ZIN17242	ZINGER PROP 1 ONLY 18x5	12.90	10.95	358
ZIN17243	ZINGER PROP 1 ONLY 18x6	12.90	10.95	358
ZIN17248	ZINGER PROP 1 ONLY 18x8	12.90	10.95	358

ZIN17249	ZINGER PROP 1 ONLY 18x10	12.90	10.95	358
ZIN17253	ZINGER PROP 1 ONLY 20x6	14.90	12.65	358
ZIN17258	ZINGER PROP 1 ONLY 20x8	14.90	12.65	358
ZIN17259	ZINGER PROP 1 ONLY 20x10	14.90	12.65	358
ZIN17263	ZINGER PROP 1 ONLY 22x6	16.90	14.35	358
ZIN17268	ZINGER PROP 1 ONLY 22x8	16.90	14.35	358
ZIN17269	ZINGER PROP 1 ONLY 22x10	16.90	14.35	358
ZIN17273	ZINGER PROP 1 ONLY 24x6	18.90	15.95	358
ZIN17278	ZINGER PROP 1 ONLY 24x8	18.90	15.95	358
ZIN17279	ZINGER PROP 1 ONLY 24x10	18.90	15.95	358
ZIN17344	ZINGER PYLON PROP A 8.5x6.5	2.05	1.95	358
ZIN17345	ZINGER PYLON PROP B 8.5x7	2.05	1.95	358
ZIN17631	ZINGER PROPS- 6 EACH - 7x4	7.20	6.15	358
ZIN17632	ZINGER PROPS- 6 EACH - 7x5	7.20	6.15	358
ZIN17633	ZINGER PROPS- 6 EACH - 7x6	7.20	6.15	358
ZIN17641	ZINGER PROPS- 6 EACH - 8x4	7.80	6.65	358
ZIN17642	ZINGER PROPS- 6 EACH - 8x5	7.80	6.65	358
ZIN17643	ZINGER PROPS- 6 EACH - 8x6	7.80	6.65	358
ZIN17651	ZINGER PROPS- 6 EACH - 9x4	7.80	6.65	358
ZIN17652	ZINGER PROPS- 6 EACH - 9x5	7.80	6.65	358
ZIN17653	ZINGER PROPS- 6 EACH - 9x6	7.80	6.65	358
ZIN17655	ZINGER PROPS- 6 EACH - 9x7	7.80	6.65	358
ZIN17661	ZINGER PROPS- 6 EACH - 10x4	8.40	7.15	358
ZIN17662	ZINGER PROPS- 6 EACH - 10x5	8.40	7.15	358
ZIN17663	ZINGER PROPS- 6 EACH - 10x6	8.40	7.15	358
ZIN17665	ZINGER PROPS- 6 EACH - 10x7	8.40	7.15	358
ZIN17673	ZINGER PROPS- 6 EACH - 11x6	9.60	8.15	358
ZIN17675	ZINGER PROPS- 6 EACH - 11x7	9.60	8.15	358
ZIN17676	ZINGER PROPS- 6 EACH - 11x7.5	9.60	8.15	358
ZIN17677	ZINGER PROPS- 6 EACH - 11x7.75	9.60	8.15	358
ZIN17678	ZINGER PROPS- 6 EACH - 11x8	9.60	8.15	358



# RETRACTABLE LANDING GEAR

## Retracts

Ever since we have been building models of airplanes that had retractable landing gear, we've wanted our models to be able to "pick up their feet", too. It was not until about six or seven years ago that retracts were developed to the state they are now. The retracts available today are well-made, rugged, and most important, reliable. Since there is a vast selection of planes that will accept retracts, all you have to do is decide that you want a retractable, and you'll have no problem selecting one.

Today, there are two basic types of retract units available: the pneumatics, and the mechanicals. The pneumatics operate by using the pressure of a compressed gas, usually Freon, or simply, air. This gas is stored in an on-board storage tank which is connected to a four-way valve which is actuated by the retract servo. The valve is called "four-way" because there are four ways for the gas to exit the valve, depending on the position of the servo. When you wish to extend the gear, the valve releases the gas to flow out the "extend" lines, through pressure tubing, and into cylinders attached to the retract gear units. Inside the cylinder is a piston which is moved by the gas pressure, and in turn moves the gear to the extended position. When the gear is retracted, the gas no longer needed inside of the cylinder used during the "extend" cycle is vented overboard.

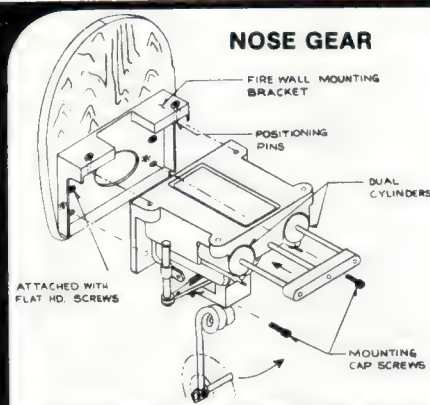
Of the retracts we carry, the Rom-air and the B&D retract systems are the only fully-pneumatic sets, and the Gold-

berg, Sonic-Systems, and the Robart units are the mechanicals.

We also handle an interesting outfit by Sonic-Systems. It is their series of pneumatic actuators. These units convert the ordinary set of mechanical retract units to the pneumatic type by the addition of the actuation cylinders and their respective air lines, valve and storage tank.

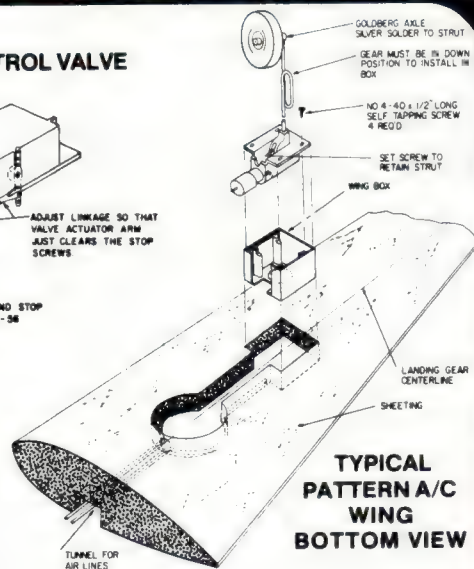
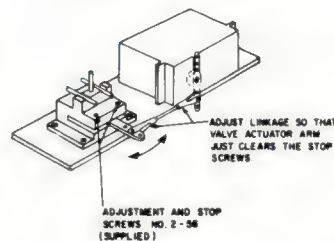
One of the innovators of the industry, Robart, has come up with two items that should be of interest to many modelers. The retractable tailwheel unit, and their new 1/2A retract units. The use of the tailwheel unit is just right for your scale combat ship, and will increase the possible flight points in competition because the plane will be just more realistic. The little gears are for all of those "little" 1/2A planes we see buzzing around nowadays. With the advent of the mini R/C systems, a full-blown 1/2A pattern or scale job is by no means unfeasible, especially with the new 1/2A carburetors

For those scale ships that require their legs to twist 90 degrees on retraction, Rom-Air and Robart have these items. The Rhom units come in two-gear and trike-gear outfits. The trike-gear outfit is especially suited for the Bridi Shrike Commander.



B & D Enterprises introduces a pneumatic landing gear system professionally manufactured of injection molded glass filled Delrin. Thorough flight testing has proven the system to be vibration resistant and long wearing. Up and down locks are mechanical while actuation is by air or freon via a flow control valve engineered to solve leakage and linkage problems. Gear struts are of highest quality spring steel with set screw flats ground for you. The nose gear unit may be firewall or belly mounted while molded mounting boxes ease the installation of the main units.

## FLOW CONTROL VALVE



## B&D ENTERPRISES

B&D22002	B&D MOLDED GEAR BOXES	4.95	4.70	359
B&D22020	B&D MECHANICAL RETRACTS-2 GR.	30.95	24.75	359

B&D22030	B&D MECHANICAL RETRACTS-3 GR.	49.95	39.95	359
B&D22200	B&D PNEUMATIC RETRACTS-2 GEAR	62.50	49.95	359
B&D22300	B&D PNEUMATIC RETRACTS-3 GEAR	89.95	71.95	359

## RETRACT SPEED REDUCERS



## FLITEGLAS MODELS

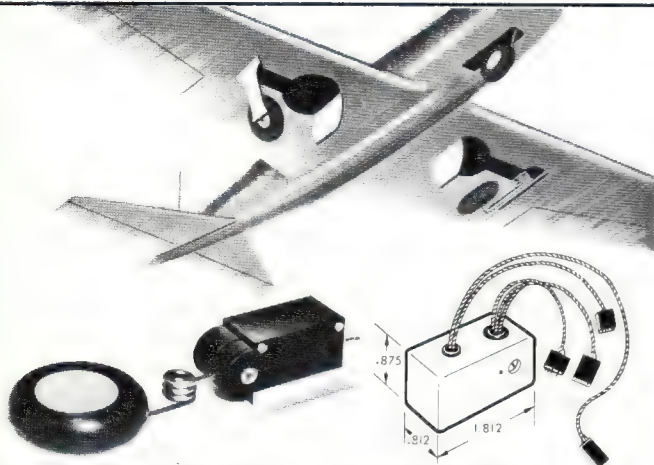
These speed reducers (6 per package) slow down the operation of pneumatic retracts. Simply install in air or freon tubing at any splice point. The reducer simply regulates the flow to give a smoother and more realistic looking operation.

FL12200	FLITEGLAS PNEUMATIC REDUCTR-6	5.95	5.35	359
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# RETRACTABLE LANDING GEAR

## KRAFT



- RUGGED AND LIGHT
- POSITIVE LOCKING
- SELF-CONTAINED
- VERY SIMPLE TO INSTALL
- EXTRA SERVOS OR BATTERY PACKS ARE NOT REQUIRED

Simplicity of installation and long trouble-free life are the keynotes of the KRAFT retractable landing gear system. Molded from high strength glass fiber reinforced nylon, it is virtually indestructible and fuel proof. Because it is self-contained, complicated actuating linkages and extra servos are avoided. The units can be mounted either vertically or horizontally. Gear legs are removable and may be bent to the desired length. The positive locking mechanism is the most positive and strongest available.

Specially designed amplifiers permit direct operation from the receiver without the necessity of extra batteries. The system may even be operated from a four channel receiver if desired.

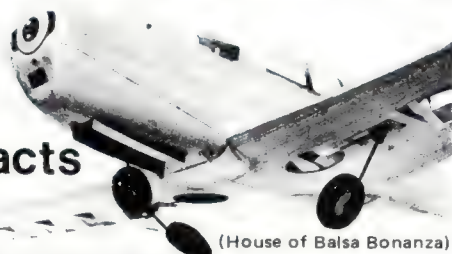
Landing gears are furnished completely wired with connectors. Since extra servos are not required, the system is very competitive in price with the less satisfactory mechanical units.

Available to fit either A or C Series radios.

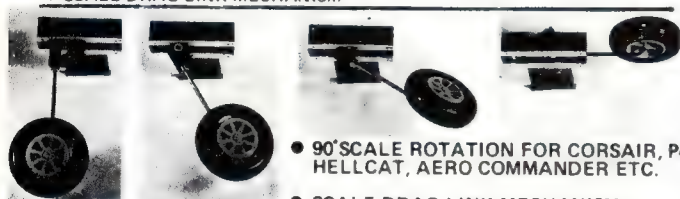
KRA22007 KRAFT 700-007 RETRACTS C-SETS  
KRA22054 KRAFT 700-054 RETRACTS A-SETS

119.95 94.95 360  
119.95 94.95 360

## 1/2A Scale Retracts



- VARIABLE GEOMETRY FEATURE (80° RETRACTION FOR FOCKE WULF-190, 110° FOR P39 NOSE GEAR, 90° FOR NORMAL SET UP)
- FITS POPULAR 1/2A KITS
- PULL UP FEATURE ELIMINATES BENDING PUSH RODS
- SCALE DRAG LINK MECHANISM



### ROTATING RETRACTS

- 90° SCALE ROTATION FOR CORSAIR, P40, HELLCAT, AERO COMMANDER ETC.
- SCALE DRAG LINK MECHANISM
- AIR CYLINDER OR SERVO RETRACTION
- .40/.60 Size

RCB22002	RCBART 1/2 A RETRACT MAIN GEAR	16.95	13.55	360
RCB22003	RCBART 1/2 A RETRACT TRI GEAR	25.95	20.75	360
RCB22020	RCBART SCALE RETRACTS- 2 GR	39.95	29.95	360
RCB22030	RCBART SCALE RETRACTS- 3 GR	54.95	41.20	360
RCB22040	RCBART H.C. SCALE RETRACTS-2GR	44.95	33.70	360
RCB22050	RCBART H.C. SCALE RETRACTS-3GR	59.95	44.95	360
RCB22090	RCBART 90 DEG RCT. RETRACTS 2	49.95	37.50	360
RCB26000	RCBART RETRACTABLE TAILWHEEL	9.95	7.95	360

## Heavy Duty Scale Retracts

- 3/16" GEAR WIRE
- SCALE DRAG LINK MECHANISM
- DESIGNED FOR ALL HEAVY DUTY APPLICATIONS (1/4 SCALE ETC)
- SERVO OR AIR CYLINDER OPERATED



## NEW .60 Scale Retracts

- SCALE DRAG LINK MECHANISM
- DESIGNED FOR ALL .60 SIZE APPLICATIONS
- SERVO OR AIR CYLINDER OPERATED

## ROBART



### SCALE RETRACTABLE TAILWHEEL

SCALE APPEARANCE  
FOR ALL SCALE APPLICATIONS P40, P47, P51, CORSAIR ETC  
STEERABLE  
OPERATES FROM CONVENTIONAL RETRACT SERVOS OR AIR CYLINDERS  
SELF LOCKING DOWN  
(WHEEL NOT INCLUDED)



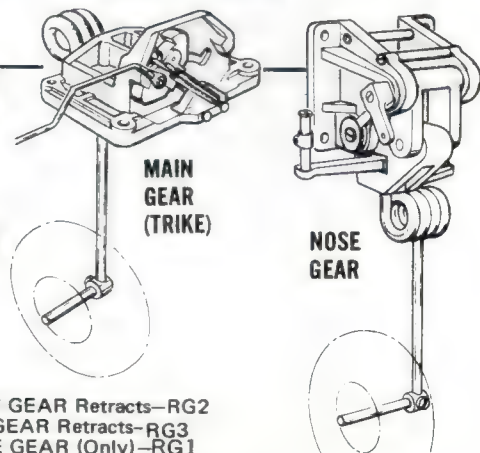
### NEW TWIN GEAR DESIGN

- LOWEST PROFILE — Main Gears 1" high.
- LIGHTEST — Nose Gear, 2 Mains and 3 Struts, only 6 oz.
- BROADEST BASED for best stress distribution.
- TOUGH — Rugged vibration absorbing nylon moldings. Large bearing surfaces.
- SHORTEST TANK COMPARTMENT — Nose Gear needs only 5 1/2" to 6".
- SIMPLEST — Main Gear has only 3 molded parts.
- EASY — Installation or Strut Removal. Low actuating force — one retract servo can easily actuate all three units.
- COST?? — Unbelievable! But True!

GBG22001	GBG 139 RG1 RETRACT NOSE GEAR	10.00	8.00	360
GBG22002	GBG 140 RG2 RETRACT TWIN-GEAR	14.95	11.95	360
GBG22003	GBG 141 RG3 RETRACT TRI-GEAR	24.95	18.70	360

## GOLDBERG

### CG RETRACTS



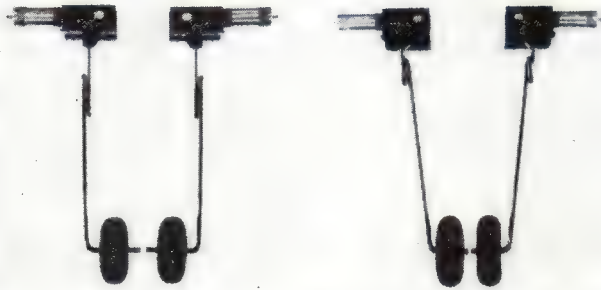
TWIN GEAR Retracts—RG2  
TRI-GEAR Retracts—RG3  
NOSE GEAR (Only)—RG1



# RETRACTABLE LANDING GEAR

## RHOM PRODUCTS

# When you think retracts... THINK ROM AIR



NEW-F.A.I. MAINS

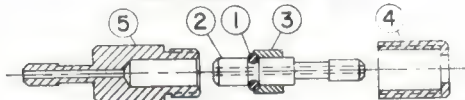
NEW-MAINS FOR PLATT FW 190-D9

Cylinders outboard—not reversible

with 3/16" preformed struts.

### THREADED COUPLING

1085 COMPLETE ASS'Y 2 REQ

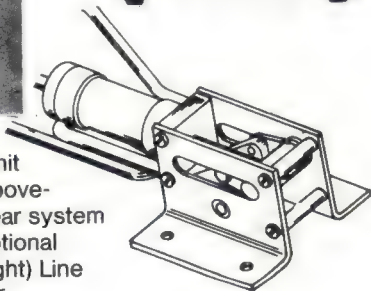


#### Assembly Instructions

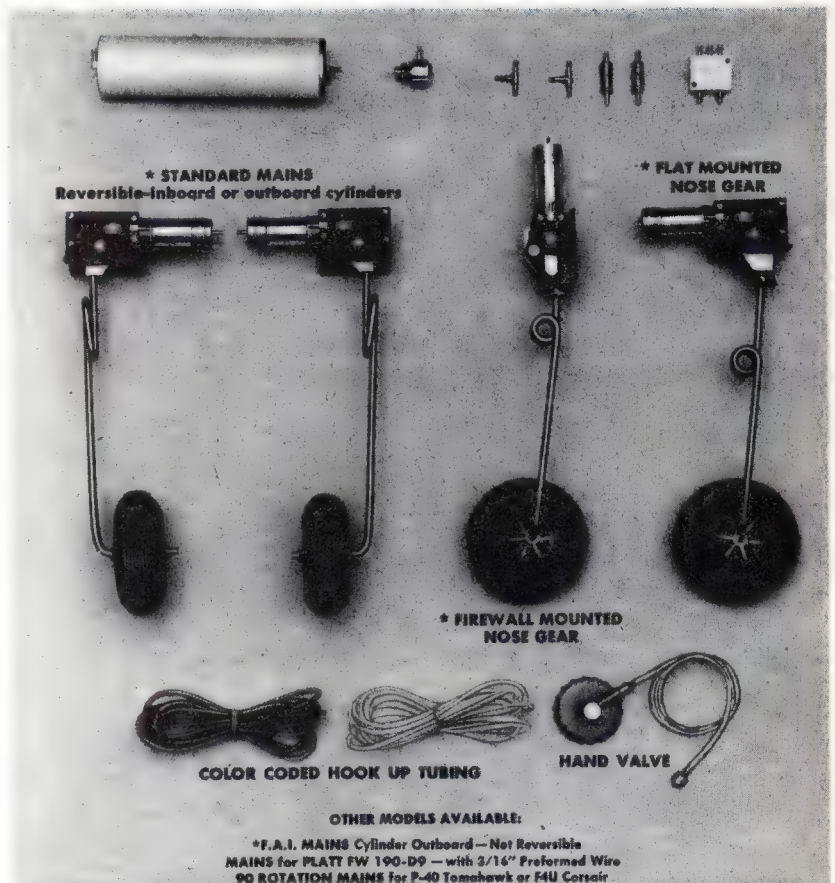
1. Lubricate O-ring ① & assemble over nipple ② to seat in groove. Slide gland ③ over nipple from tubing and with concave face toward O-ring.
2. Slip knurled nut ④ over nipple & seal assembly & thread onto fitting ⑤ to seat gland ③ in nut ④.
3. Completed coupling should only be hand tightened & should be loosened for prolonged storage of the system.
4. Polarization may be accomplished by assembling tubing by color code as described in the text & the couplings in alternate male female configuration as shown.
5. The free turning knurled nut ④ is identified with a machined band. To avoid twisting the pressure lines nut ④ should be turned while holding fitting ⑤ firm.



(Above) Main gear unit in down position. (Above-right) Complete 3 gear system shown along with optional pressure gauge. (Right) Line drawing of main gear.



An important tip for your customer to improve landing gear life: All gear should be mounted so that the gear rests against a foam cushion in its up position. This will dramatically improve the life of the gear.



Rom-Air retracts are the choice of the pros due to their exceptional reliability and durability. The system is unique in that it uses compressed Freon 12 as an energy source rather than servos or electric motors.

Each system comes complete with the retracts, freon air-borne tank, all hoses and valves, and all necessary fittings, in addition to one can of freon. We strongly suggest that you order two line couplers with each set as they make the removal of your wing much easier.

RCM22073	RHOM 1073 COLOR CODED TUBING	4.00	3.75	361
RCM22100	RHOM 2 GEAR FOR FW-190	89.50	64.95	361
RCM22101	RHOM 2 GEAR - MAINS	87.00	62.95	361
RCM22102	RHOM FAI 2 GEAR - SLIMLINE	79.95	59.95	361
RCM22104	RHOM 3 GEAR - FIREWALL	125.00	87.50	361
RCM22105	RHOM 3 GEAR - FLAT/BELLY MOUNT	125.00	87.50	361
RCM22106	RHOM 90 DEGREE ROTATING 2 GEAR	114.95	79.95	361
RCM22107	RHOM 90 DEGREE ROTATING 3 GEAR	139.95	109.95	361
RCM22108	RHOM 90 D. TURN GR. CONVERSION	24.95	22.45	361
RCM22114	RHOM 1004 NOSE GEAR - FIREWALL	42.50	33.95	361
RCM22115	RHOM 1005 NOSE GEAR-FLAT MOUNT	42.50	33.95	361
RCM22169	RHOM 1069 PRESSURE GAUGE	14.95	13.95	361
RCM22182	RHOM 1082 FREON - 14 OZ.	3.00	2.75	361
RCM22184	RHOM 1084 OIL 1-1/4 OZ.	1.75	1.65	361
RCM22185	RHOM 1085 LINE COUPLER- 1 ONLY	2.00	1.90	361

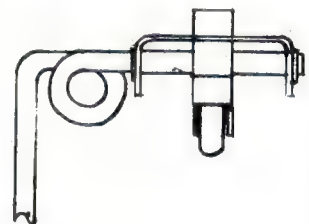
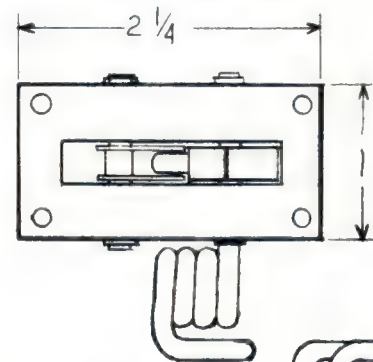
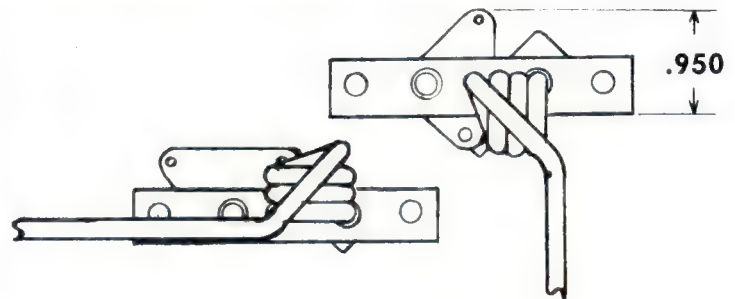
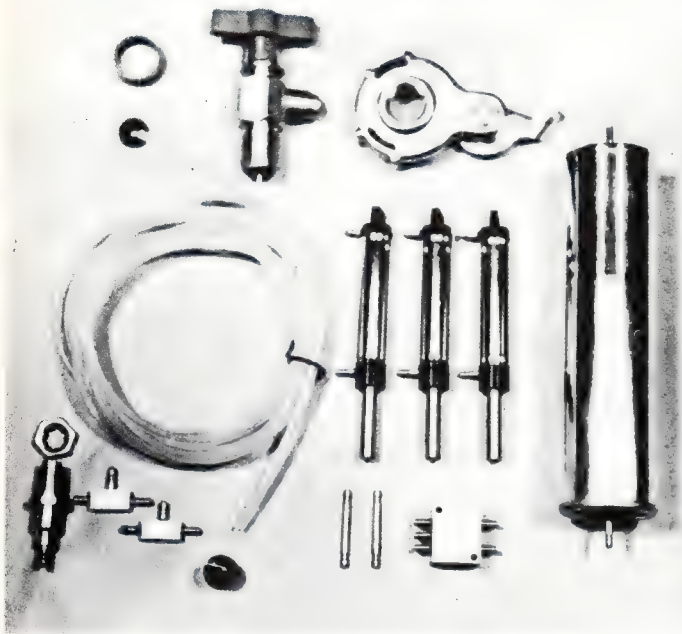


# RETRACTABLE LANDING GEAR

## SONIC SYSTEMS

# TORSIONAIRE

A RETRACT GEAR THAT HAS IT ALL



Included in the GR-3 system are the following components:

- 3 miniature precision air cylinders
- 1 4 way control valve
- 1 check valve for vehicle charging
- 1 supply can valve with special chuck
- 7 feet of hook-up tubing
- 2 "T" fittings
- 2 straight connectors
- 1 airborne supply tank

GR-3 under 4 ounces  
GR-2 3.4 ounces

**ACTUATORS:** Pictured above is the GR-3X 3 gear actuator system along with optional can valve and special chuck.

**GR-3X SYSTEM #SOS22305** Includes 3 air cylinders, 4 way control valve, check valve for charging, 7 feet hook-up tubing, one dual fitting, two straight connectors, airborne supply tank, and complete instructions.

**GR-3A SYSTEM #SOS22304** Same as GR-3X system except this comes with a Supercharger pump in addition.

**MONITAIRE #SOS22402** Miniature pressure indicator that mounts on the aircraft itself.

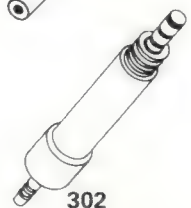
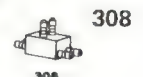
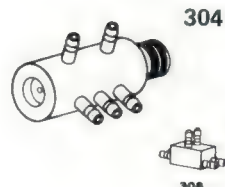
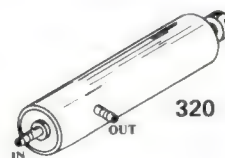
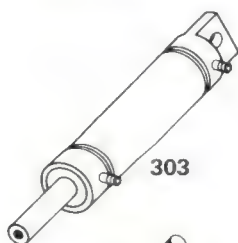
**RETRACTS:** Pictured above is the new Sonic-Systems Torsionaire Retract Gear. Features a low profile of .95" and nylon bearings. They work well with actuators.

**NEW**  
Sonic Supercharger Hand operated pump to pressurize Sonic and Rom-Air Retracts. Forget problems with temperature and lubrication. Don't pack up and go home because your supply of freon is exhausted. Easily pump to 100 P.S.I., furnished with airborne valve and quick chuck.



**NEW**  
Sonic Quick Disconnects for attaching wing. No need to cut the lines. Compact, rustproof, and inexpensive.

**SUPERCHARGER #SOS22400**  
**QUICK DISCONNECTS(2) #SOS22401**



SCS22C01	SCNIC 201 NOSE GEAR RETRACT	19.95	16.95	362
SCS22C02	SCNIC 200 2 GEAR RETRACTS	15.95	16.95	362
SCS22304	SCNIC 100 GR-3A SYS. W/CHARGER	59.95	47.95	362
SCS22305	SCNIC 101 GR-3X SYS.WO/CHARGER	49.95	39.95	362
SCS22400	SCNIC 301 SUPER CHARGER II	12.95	10.95	362
SCS22401	SCNIC 309 QUICK-DISCONNECTS-2	3.95	3.55	362
SCS22402	SCNIC 302 MONITAIRE	7.95	7.15	362
SCS22403	SCNIC 303 AIR CYLINDER	9.95	8.95	362
SCS22404	SCNIC 304 CONTROL VALVE	10.00	8.95	362
SCS22405	SCNIC 308 T-CONNECTORS-PAIR	1.50	1.45	362
SCS22406	SCNIC 320 PRESSURE REGULATOR	13.95	12.20	362



## SPINNERS

The "nose cone" over the propellor hub is called the spinner. The purpose of the spinner is to fair in the propellor to the cowl. On a model, the spinner is sometimes used to hide the prop nut, while removing the hazard of the sharp edges of that nut.

For some planes, especially scale ships, the spinner is essential in the streamlining of the plane. When building this type of plane, you should be careful to select the proper spinner.

One misconception that most people seem to have with spinner selection, is that of thinking that spinner size is af-

fectured by engine size. This is not so. The engine has absolutely nothing to do with the size of the spinner. You should select the spinner by referring to the plans of your kit, and seeing what size the *airplane* calls for.

For CB Associates and Sullivan spinners, you should be sure to select the appropriate adapter, so that your spinner will fasten onto the plane. Fox spinners also require adapters, but they come with one, the size is 1/4-28.

The other brands we handle, Goldberg, and Ace, need no adapters but are held on by the prop nut. Note, though, Ace spinners will only work on Cox engines, as the spinners are for 1/2A airplanes only.

## PROP NUT THREAD SIZE CHART

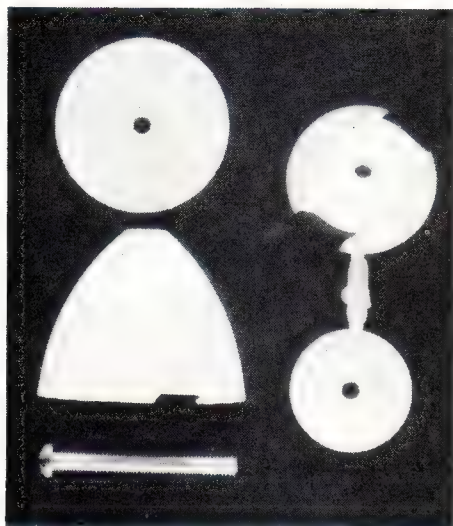
This chart will allow you to select the proper adapter so that your C.B. Associates or Sullivan spinner can be mounted on your aircraft. Just look up your engine on the chart to find the proper adapter size. If your engine is not shown, measure the outside diameter of the THREADED portion of the propshaft. This will tell you what size you'll need. If your engine is imported, you may have to check to see if you need a metric adapter. Sullivan adapters fit all of their spinners, regardless of spinner size. If your C.B. Spinner is 3/4", you'll need a small C.B. adapter. Fox spinners come with 1/4 - 28 adapters on 2" or larger spinners, 10 - 32 on smaller spinners. If you need something else, look up the size you need on the chart.

(For use with C.B., Sullivan, Fox and others requiring adapters)

THREAD	ENGINES
1/4-28	FOX 25, 29, 40, 45; H.B. 61; H.P. 61; K&B 19, 40; O.S. MAX 20, 25, 30, 35, 40, 50, 60; ROSS 60; SUPERTIGRE 23, 35, 46, 60; VECO .19; WEBRA 40, 61, Speed; K&B 61 Series 75; KRAFT 61., OPS .40. .61
6 m.m.	ENYA 15, 19; O.S. MAX Wankel 30.
7 m.m.	ENYA 29, 35, 40, 45, 60; SUPERTIGRE 71.
5/16 x 24	FOX 60, 78; MERCO 61; O.S. MAX 80; K&B 61 Series 72; VECO 61.
10-32	FOX 15, 19; O.S. MAX Pet 099, 10.

NOTE: 1 3/4" Spinners use small version adaptors only.

## ACE R/C



### ACE 1" and 1 5/16" DIA. SPINNERS

With the ever increasing popularity of 1/2A pattern and racing there was a need for a high quality small spinner designed expressly for the Cox Tee Dee .049's and high RPMs.

Since regular nylon will stretch and expand at 20,000 RPM, these spinners are made of glass fibre-filled nylon for rigidity.

Will fit all Cox .049/.051's. White only.

ACE18C05	ACE SPR1 SPINNER 1 IN.	1.10	1.05	363
ACE18C10	ACE SPR2 SPINNER 1-5/16 IN.	1.29	1.20	363

## PRATHER PRODUCTS

### New! SPINNER BALANCER

A balanced spinner is just as important as a balanced prop.

- Reduces Vibration
- Less Engine Wear
- Less Radio Failure
- More RPM



This spinner balancer works equally well on both nylon and metal spinners that use a front retaining screw for attachment to engine. This includes Ace, C.B. Associates, Fox, and Sullivan spinners. Don't underestimate the effect of an unbalanced spinner—it could well be the vibration source of erratic radio operation. Don't take a chance!

PRA21580	PRATHER 3060 SPINNER BALANCER	7.95	7.15	363
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# SPINNERS

## PLASTIC SPINNERS

### Size

1 1/2" . . .  
2" . . .  
2 1/4" . . .  
2 1/2" . . .  
2 3/4" . . .  
3" . . .  
3 1/2" (P-51)  
3 3/4" (P-40)

## ALUMINUM SPINNERS

### Size

2" . . .  
2 1/4" . . .  
2 1/2" . . .

## SPINNER ADAPTER NUTS

### Notches

1/4-28 x 8-32 x 1/2" hex	0
7 mm x 8-32 x 1/2" hex	1
6 mm x 8-32 x 1/2" hex	2
5/16-24 x 8-32 x 1/2" hex	3
1/4-28 x 4-40 x 7/16" hex	0
12-32 x 4-40 x 7/16" hex	1
6 mm x 4-40 x 7/16" hex	2
10-32 x 4-40 x 7/16" hex	3
5 mm x 4-40 x 7/16" hex	4

## Reduce Radio Failure with C.B. Products

**IMPORTANT THINGS TO DO TO REDUCE RADIO FAILURE:** Balance your propellers; use a C.B. spinner; use a C.B. mount. You can feel the difference as soon as you start the engine.

**DOUBLE, EVEN TRIPLE YOUR RADIO AND SERVO LIFE!!** According to radio experts, the cause of 95% of radio and servo failures is vibration. Our spinners and motor mounts are designed to reduce vibration to a minimum. Use our spinners in Formula I competition — they have been tested to 35,000 RPM.

# FOX



CONVENTIONAL

SLIM JIM

CONICAL

Fox spinners are machined from solid aluminum bar and are buffed to a high lustre. The three different contours shown above are all available in 1 1/2" to 2 1/2" diameter.

FCX18011	FOX #60106	SPINNER CONV 1 1/2	10.00	9.00	364
FCX18012	FOX #60107	SPINNER CONV 1 3/4	11.00	9.35	364
FCX18013	FOX #60108	SPINNER CONV 2	12.00	10.20	364
FCX18014	FOX #60109	SPINNER CONV 2 1/4	13.00	11.05	364
FCX18015	FOX #60110	SPINNER CONV 2 1/2	14.00	11.90	364
FCX18021	FOX #60206	SPINNER S JIM 1 1/2	11.00	9.35	364
FCX18022	FOX #60207	SPINNER S JIM 1 3/4	12.00	10.20	364
FCX18023	FOX #60208	SPINNER S JIM 2	13.00	11.05	364
FCX18024	FOX #60209	SPINNER S JIM 2 1/4	14.00	11.90	364
FCX18025	FOX #60210	SPINNER S JIM 2 1/2	15.00	12.75	364
FCX18031	FOX #60306	SPINNER CONCL 1 1/2	10.00	9.00	364
FCX18032	FOX #60307	SPINNER CONCL 1 3/4	11.00	9.35	364
FCX18033	FOX #60308	SPINNER CONCL 2	12.00	10.20	364
FCX18034	FOX #60309	SPINNER CONCL 2 1/4	13.00	11.05	364
FCX18035	FOX #60310	SPINNER CONCL 2 1/2	14.00	11.90	364
FCX18403	FOX #60403	SHORT ADAPT 1/4X28	1.50	1.40	364
FCX18404	FOX #60404	MEDIUM ADAPT 1/4X28	1.50	1.40	364
FCX18405	FOX #60405	LONG ADAPT 1/4X28	1.50	1.40	364
FCX18406	FOX #60406	MEDIUM ADAP 5/16X24	1.50	1.40	364
FCX18407	FOX #60407	LONG ADAP 5/16X24	1.50	1.40	364
FCX18503	FOX #60503	SPINNER NUT 10/32	2.00	1.90	364
FCX18504	FOX #60504	SPINNER NUT 1/4	2.25	2.15	364

# C.B. ASSOCIATES

## PLASTIC AND ALUMINUM SPINNERS

Machined aluminum, and plastic cones with aluminum backplates. Will fit any engine with 3/8, 5/16, 7 mm or 1/4" shafts. All smooth-lined and true running, these spinners will aid the speed and beauty of any model airplane. Aluminum spinners available in 2", 2 1/4" and 2 1/2" now (larger sizes later); and the plastic spinners are available in 1 1/2" to 3 1/2" in red, black and white colors.

CBA18003	C B SPINNER ALUM 1-1/2	#5503	5.45	4.90	364
CBA18004	C B SPINNER ALUM 1-3/4	#5504	5.80	5.22	364
CBA18005	C B SPINNER ALUM 2	#5505	7.95	7.15	364
CBA18006	C B SPINNER ALUM 2 1/4	#5506	8.95	8.05	364
CBA18007	C B SPINNER ALUM 2 1/2	#5507	9.95	8.95	364
CBA18111	C B SPINNER 1-3/4 REC	#5001	3.60	3.30	364
CBA18112	C B SPINNER 1-3/4 BLACK	#5003	3.60	3.30	364
CBA18113	C B SPINNER 1-3/4 WHITE	#5005	3.60	3.30	364
CBA18121	C B SPINNER 2 IN. REC	#5013	4.00	3.70	364
CBA18122	C B SPINNER 2 IN. BLACK	#5015	4.00	3.70	364
CBA18123	C B SPINNER 2 IN. WHITE	#5017	4.00	3.70	364
CBA18131	C B SPINNER 2-1/4 REC	#5025	4.60	4.25	364
CBA18132	C B SPINNER 2-1/4 BLACK	#5027	4.60	4.25	364
CBA18133	C B SPINNER 2-1/4 WHITE	#5029	4.60	4.25	364
CBA18141	C B SPINNER 2-1/2 REC	#5037	5.20	4.70	364
CBA18142	C B SPINNER 2-1/2 BLACK	#5039	5.20	4.70	364
CBA18143	C B SPINNER 2-1/2 WHITE	#5041	5.20	4.70	364
CBA18151	C B SPINNER 2-3/4 REC	#5049	6.40	5.75	364
CBA18152	C B SPINNER 2-3/4 BLACK	#5051	6.40	5.75	364
CBA18153	C B SPINNER 2-3/4 WHITE	#5053	6.40	5.75	364
CBA18161	C B SPINNER 3 IN. REC	#5061	6.60	5.95	364
CBA18162	C B SPINNER 3 IN. BLACK	#5063	6.60	5.95	364
CBA18163	C B SPINNER 3 IN. WHITE	#5065	6.60	5.95	364
CBA18181	C B SPINNER 3.5 P-40 REC	#5085	8.40	7.55	364
CBA18182	C B SPINNER 3.5 P-40 BLK	#5087	8.40	7.55	364
CBA18183	C B SPINNER 3.5 P-40 WHI	#5089	8.40	7.55	364
CBA18191	C B SPINNER 3.5 P-51 REC	#5073	8.40	7.55	364
CBA18192	C B SPINNER 3.5 P-51 BLK	#5075	8.40	7.55	364
CBA18193	C B SPINNER 3.5 P-51 WHI	#5077	8.40	7.55	364
CBA18211	C B ADAP LG #5201 1/4-28	0 N	.75	.70	364
CBA18212	C B ADAP LG #5202 7 MM	1 N	.75	.70	364
CBA18213	C B ADAP LG #5203 6 MM	2 N	.75	.70	364
CBA18214	C B ADAP LG #5204 5/16-24	3 N	.75	.70	364
CBA18221	C B ADAP SM #5220 1/4-28	0 N	.70	.65	364
CBA18223	C B ADAP SM #5222 6 MM	2 N	.70	.65	364
CBA18226	C B ADAP SM #5223 10-32	3 N	.70	.65	364
CBA18227	C B ADAP SM #5224 5 MM	4 N	.70	.65	364

## FOX SPINNERS - THE WORLD'S FINEST

Fox "machined from bar" spinners have proven themselves to be first choice among modelers to whom money is no object. They are machined from solid aluminum bar and have a variable wall thickness according to the strength required. They have the durability to withstand continuous use with an electric starter. They will not work loose or spin off. Fox machined from bar spinners are offered in 3 contours. Each spinner has been buffed to a high lustre. The Fox method of attaching spinners completely eliminates the possibility of spinning the assembly off with a starter as the spinner is held on with a small diameter nose screw which ties in with a special prop nut supplied. The interlocking feature of the spinner shell into the rear cover prevents any spreading.

Diameter	Conventional Contour No.	Slim Jim Contour No.	Conical Contour	Standard Shaft Size
1 1/2"	60106	60206	60306	10-32
1 3/4"	60107	60207	60307	10-32
2"	60108	60208	60308	1/4-28
2 1/4"	60109	60209	60309	1/4-28
2 1/2"	60110	60210	60310	1/4-28



## FOX ALUMINUM SPINNER NUTS

Fox aluminum spinner nuts are machined from solid aluminum bar and contoured to a pleasing appearance. They replace the normal nut and washer used to hold on a propeller. They are tightened by means of a cross hole drilled near the front. They make a very pleasing addition to airplanes not suited to the larger full size spinners. We do not recommend them for motors of over .45 displacement because of the problem in getting them tight enough to hold the prop. On the smaller motors they work fine.

60503 10/32 Spinner Nut

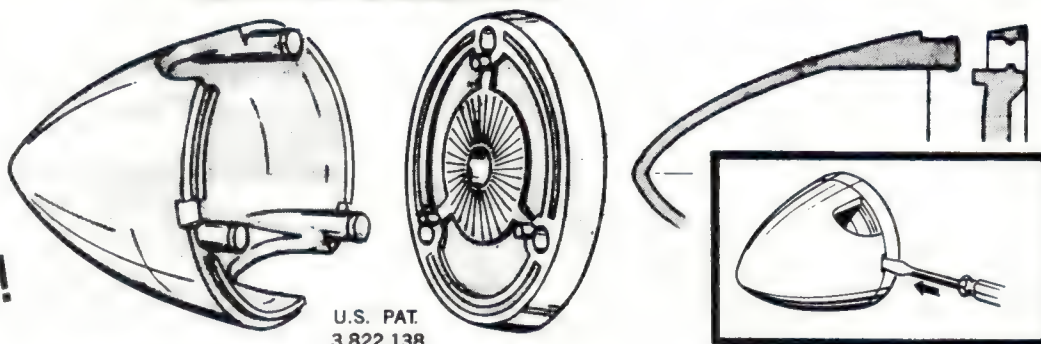
60504 1/4" Spinner Nut

Adapter Nuts and Mating Washers	
60401	10-32 Short
60402	10-32 Medium
60403	1/4-28 Short
60404	1/4-28 Medium
60405	1/4-28 Long
60406	5/16-24 Medium
60407	5/16-24 Medium



## GOLDBERG

**NEW!**  
**"SNAP-ON"**  
**SPINNERS!**



U.S. PAT.  
3,822,138

**SIMPLE TO USE, NO SCREWS OR HARDWARE REQUIRED!**

At last, a spinner that works like you've always wanted! Goes on like SNAP-SNAP-SNAP! Comes off 1-2-3! No screws to tighten, no extra hardware to buy. Built to take electric starters. Over 2 years in development. Study the features shown here,  
**CG Snap-On Spinner** — the beautiful one that does the job like no spinner ever did before!

### HOW TO USE YOUR "SNAP-ON" SPINNER



1. Carefully push small screwdriver straight into all 3 slots — **DON'T TWIST!** If prop is too wide, trim out for leading edge as indicated — not trailing edge.

2. Examine Retaining Pins closely for possible tiny threads. Remove -- they can make assembly hard.

3. For easier assembly, rub fingers around Retaining Pins to lubricate. If necessary, "break-in" pins by standing on spinner to assemble.



4. Set prop against Line-Up pin, and hold while tightening nut.



5. With Retaining Pin at top, press hands together suddenly. Rotate next pin to top and repeat.

GBG18011	GBG 115 SPINNER 1 1/2 RED	1.49	1.40	365
GBG18012	GBG 114 SPINNER 1 1/2 BLACK	1.49	1.40	365
GBG18013	GBG 113 SPINNER 1 1/2 WHITE	1.49	1.40	365
GBG18021	GBG 120 SPINNER 1 3/4 RED	1.79	1.70	365
GBG18022	GBG 119 SPINNER 1 3/4 BLACK	1.79	1.70	365
GBG18023	GBG 118 SPINNER 1 3/4 WHITE	1.79	1.70	365
GBG18031	GBG 125 SPINNER 2 IN. RED	2.10	2.00	365
GBG18032	GBG 124 SPINNER 2 IN. BLACK	2.10	2.00	365

GBG18033	GBG 123 SPINNER 2 IN. WHITE	2.10	2.00	365
GBG18041	GBG 130 SPINNER 2 1/4 RED	2.40	2.30	365
GBG18042	GBG 129 SPINNER 2 1/4 BLACK	2.40	2.30	365
GBG18043	GBG 128 SPINNER 2 1/4 WHITE	2.40	2.30	365
GBG18051	GBG 135 SPINNER 2 1/2 RED	2.75	2.60	365
GBG18052	GBG 134 SPINNER 2 1/2 BLACK	2.75	2.60	365
GBG18053	GBG 133 SPINNER 2 1/2 WHITE	2.75	2.60	365

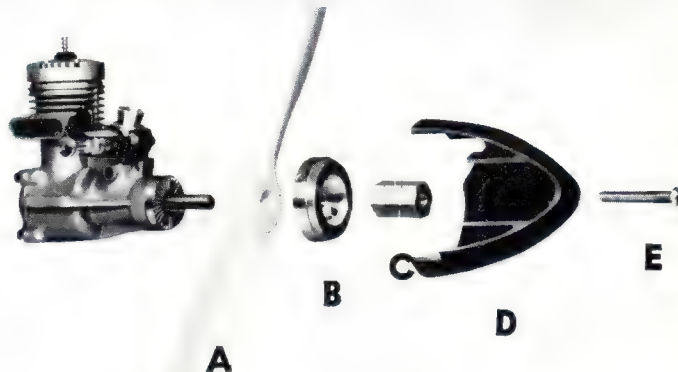
## SULLIVAN

### PROP-LOC HI-TORK NYLON SPINNER

**FINALLY . . . PROP-LOC IS HERE!**

**YOUR PROP NEED NEVER FALL OFF AGAIN.**

After all those years of living with the problem of props falling off when flipping on the ground or when shifting from low to high in the air, you can finally forget it. The problem's been solved. Our Pylon Brand Prop-Loc Hi-Tork Spinners and Spinnerettes in all popular sizes are on your dealers shelves now. Wait till you see them. You'll agree that Prop-Loc is the best way ever devised to solve that annoying — and sometimes costly — problem once and for all. Designed for use with or without Electric Starters.



The above picture shows the assembly procedure for using a Sullivan Prop-Loc spinner. The propeller (A) is put on the engine shaft. Then the adaptor (B and C) is screwed on in place of the regular prop nut. The spinner cone (D) is then located. The spinner cone is secured using the spinner screw (E). You must have a Sullivan adaptor (B and C) and the correct size is determined by engine thread size (see chart on Page 317).

SUL18211	SULLIVAN ADAPTOR 1/4-28 #PL28	1.10	1.05	365
SUL18212	SULLIVAN ADAPTOR 7 MM. #PL7	1.10	1.05	365
SUL18213	SULLIVAN ADAPTOR 6 MM. #PL6	1.10	1.05	365
SUL18214	SULLIVAN ADAPTOR 5/16-24 #PL24	1.10	1.05	365
SUL18331	SULLIVAN SPINNER 2 RED	.80	.75	365
SUL18332	SULLIVAN SPINNER 2 BLACK	.80	.75	365
SUL18333	SULLIVAN SPINNER 2 WHITE	.80	.75	365
SUL18341	SULLIVAN SPINNER 2 1/4 RED	.80	.75	365

SUL18342	SULLIVAN SPINNER 2 1/4 BLACK	.80	.75	365
SUL18343	SULLIVAN SPINNER 2 1/4 WHITE	.80	.75	365
SUL18351	SULLIVAN SPINNER 2 1/2 RED	.80	.75	365
SUL18352	SULLIVAN SPINNER 2 1/2 BLACK	.80	.75	365
SUL18353	SULLIVAN SPINNER 2 1/2 WHITE	.80	.75	365
SUL18361	SULLIVAN SPINNER 2 3/4 RED	.80	.75	365
SUL18362	SULLIVAN SPINNER 2 3/4 BLACK	.80	.75	365
SUL18363	SULLIVAN SPINNER 2 3/4 WHITE	.80	.75	365



# STRIPING/TRIM/DECALS

## STRIPING/TRIM/DECALS

Stripes! Stars! Lettering, ads, roundels! All of these make our planes more beautiful, more colorful, and most of all, more believable.

All of the striping tapes, trim sheets, and decals help us to accomplish just that . . . making the plane look better. To be sure, the more experience you have finishing a plane, the better the job you'll do, but even the simplest stripe along the side of the plane makes it look a lot better.

Striping tape is just that. It is a thin, colored tape that you apply to the plane to get pinstripes. They come in a variety of widths and colors, so that you can get the effect you want. For wider stripes, or complex shapes, trim sheets fill the bill. They are wide and allow you to cut

various shapes and letters. Trim sheets also come in a wide variety of colors . . . even Checkerboard!

Decals are things we're all familiar with. They allow us to put complex designs on the plane because somebody else has done all the hard work. All we do is transfer them to the plane.

Striping tape is made by Bridi and Goldberg. Trim sheets are made by Top Flite (Monokote). Decals are made by Coverite, Jemco, Pica, Top Flite (Monokote Markings) and Twinn-K (car decals).

For those of you who paint, Fliteglas offers their Liquid Masking Film. This allows you to mask off an area and then paint on the design you want!

Tatone and Gas Model Products bring you their instruments, which can help you make the plane's cockpit look realistic.



## BRIDI

### B & E QUIK-STRIP

Available in several brilliant colors and sizes, this extra thin (only 2 thousandths of an inch) tape features maximum flexibility. Great for smooth curves and straight lines even on complex contours. Won't fall off due to specially formulated pressure sensitive adhesive that will withstand model fuels. Also available is a special masking tape.

BRI42310	B&E MASKING TAPE 1/16 IN.	1.00	.95	366
BRI42311	B&E KWIKSTRYPE RED 1/16 IN.	2.20	2.10	366
BRI42312	B&E KWIKSTRYPE ORANGE 1/16 IN.	2.20	2.10	366
BRI42313	B&E KWIKSTRYPE YELLOW 1/16 IN.	2.20	2.10	366
BRI42314	B&E KWIKSTRYPE WHITE 1/16 IN.	2.20	2.10	366
BRI42315	B&E KWIKSTRYPE SILVER 1/16 IN.	2.20	2.10	366
BRI42316	B&E KWIKSTRYPE BLUE 1/16 IN.	2.20	2.10	366
BRI42318	B&E KWIKSTRYPE GOLD 1/16 IN.	2.20	2.10	366
BRI42319	B&E KWIKSTRYPE BLACK 1/16 IN.	2.20	2.10	366
BRI42320	B&E MASKING TAPE 3/32 IN.	1.19	1.10	366
BRI42321	B&E KWIKSTRYPE RED 3/32 IN.	2.95	2.80	366
BRI42322	B&E KWIKSTRYPE CRANGE 3/32 IN.	2.95	2.80	366

### DIRECTIONS FOR STRIPING TAPES

1. Clean surface thoroughly, as well as hands, before applying tape. Surface temperatures should not be lower than 45°F. or higher than 65°F. If surface is too hot, use a damp cloth to cool surface.
2. Remove protective bottom liner material to expose adhesive as needed.
3. Press tape firmly in place without over stretching.
4. Your striping will be ready to use after 48 hours drying time at 70°F. or 6 hours in open sunshine.
5. For fastest and most permanent bond use a heat gun or portable hair dryer. Apply heat lightly with continuous motion.

BRI42323	B&E KWIKSTRYPE YELLOW 3/32 IN.	2.95	2.80	366
BRI42324	B&E KWIKSTRYPE WHITE 3/32 IN.	2.95	2.80	366
BRI42325	B&E KWIKSTRYPE SILVER 3/32 IN.	2.95	2.80	366
BRI42326	B&E KWIKSTRYPE BLUE 3/32 IN.	2.95	2.80	366
BRI42328	B&E KWIKSTRYPE GOLD 3/32 IN.	2.95	2.80	366
BRI42329	B&E KWIKSTRYPE BLACK 3/32 IN.	2.95	2.80	366
BRI42330	B&E MASKING TAPE 1/8 IN.	1.39	1.30	366
BRI42331	B&E KWIKSTRYPE RED 1/8 IN.	3.20	2.95	366
BRI42332	B&E KWIKSTRYPE ORANGE 1/8 IN.	3.20	2.95	366
BRI42333	B&E KWIKSTRYPE YELLOW 1/8 IN.	3.20	2.95	366
BRI42334	B&E KWIKSTRYPE WHITE 1/8 IN.	3.20	2.95	366
BRI42335	B&E KWIKSTRYPE SILVER 1/8 IN.	3.20	2.95	366
BRI42336	B&E KWIKSTRYPE BLUE 1/8 IN.	3.20	2.95	366
BRI42338	B&E KWIKSTRYPE GOLD 1/8 IN.	3.20	2.95	366
BRI42339	B&E KWIKSTRYPE BLACK 1/8 IN.	3.20	2.95	366
BRI42340	B&E MASKING TAPE 1/4 IN.	1.59	1.50	366
BRI42341	B&E KWIKSTRYPE RED 1/4 IN.	3.95	3.65	366
BRI42342	B&E KWIKSTRYPE ORANGE 1/4 IN.	3.95	3.65	366
BRI42343	B&E KWIKSTRYPE YELLOW 1/4 IN.	3.95	3.65	366
BRI42344	B&E KWIKSTRYPE WHITE 1/4 IN.	3.95	3.65	366
BRI42345	B&E KWIKSTRYPE SILVER 1/4 IN.	3.95	3.65	366
BRI42346	B&E KWIKSTRYPE BLUE 1/4 IN.	3.95	3.65	366
BRI42348	B&E KWIKSTRYPE GOLD 1/4 IN.	3.95	3.65	366
BRI42349	B&E KWIKSTRYPE BLACK 1/4 IN.	3.95	3.65	366
BRI42350	B&E MASKING TAPE 3/8 IN.	1.79	1.70	366
BRI42360	B&E MASKING TAPE 1/2 IN.	1.99	1.90	366

## GAS MODEL PRODUCTS

Gas Model Products produces 2 different sets of aircraft instrument decals. First is their assortment of decals with 20 gauges in 3/16", 1/4", 3/8", and 1/2" diameters. They also produce 1/4 scale decals of 20 different gauges in 3/4" and 1" diameters.

GAS20C10	GMP 1/4 SCALE INSTRUMENTS	1.49	1.40	366
GAS20C50	GMP AIRCRAFT INSTRUMENTS-ASSTD	.98	.95	366



## FLITEGLAS MODELS LIQUID MASKING FILM

**Makes Complicated Paint Schemes Easy**

★ EASILY MASKS LETTERS  
INSIGNIA, THIN LINES & CURVES

★ MASKS ANY FINISH OR SURFACE

★ LEAVES SHARP, CLEAN PAINT LINES

1 Pint

FLI42C00	FLITEGLAS LIQUID MASKING FILM	5.95	5.35	366
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# GOLDBERG COLOR-STRIPES

●YELLOW ●BLACK ●BLUE  
●WHITE ●GOLD ●RED

★ 6 COLORS  
4 WIDTHS

1/16" Wide,  
36 Feet Long

3/32" Wide,  
36 Feet Long

1/8" Wide,  
36 Feet Long

1/4" Wide,  
36 Feet Long



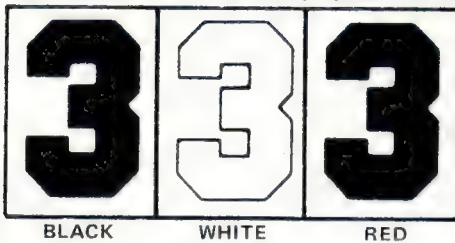
Color-Stripe has a patented adhesive which cures in 3 hours in the sun. It prevents loose ends and curves from "popping" up while cleaning your model after a day of fun. No job is too big with Color-Stripe, simply because it works!

GBG42211	STRIPE	348	16R RED 1/16 IN.	2.29	2.15	367
GBG42213	STRIPE	347	16Y YELLOW 1/16 IN.	2.29	2.15	367
GBG42214	STRIPE	349	16W WHITE 1/16 IN.	2.29	2.15	367
GBG42216	STRIPE	352	16BU DKL BLU 1/16 IN.	2.29	2.15	367
GBG42218	STRIPE	351	16G GOLD 1/16 IN.	2.29	2.15	367
GBG42219	STRIPE	350	16BK BLACK 1/16 IN.	2.29	2.15	367
GBG42221	STRIPE	354	3R RED 3/32 IN.	2.98	2.85	367
GBG42223	STRIPE	353	3Y YELLOW 3/32 IN.	2.98	2.85	367
GBG42224	STRIPE	355	3W WHITE 3/32 IN.	2.98	2.85	367
GBG42226	STRIPE	358	3BU CK BLU 3/32 IN.	2.98	2.85	367
GBG42228	STRIPE	357	3G GOLD 3/32 IN.	2.98	2.85	367
GBG42229	STRIPE	356	3BK BLACK 3/32 IN.	2.98	2.85	367
GBG42231	STRIPE	360	8R RED 1/8 IN.	2.98	2.85	367
GBG42233	STRIPE	359	8Y YELLOW 1/8 IN.	2.98	2.85	367
GBG42234	STRIPE	361	8W WHITE 1/8 IN.	2.98	2.85	367
GBG42236	STRIPE	364	8BU CK BLU 1/8 IN.	2.98	2.85	367
GBG42238	STRIPE	363	8G GOLD 1/8 IN.	2.98	2.85	367
GBG42239	STRIPE	362	8BK BLACK 1/8 IN.	2.98	2.85	367
GBG42241	STRIPE	366	4R RED 1/4 IN.	3.98	3.65	367
GBG42243	STRIPE	365	4Y YELLOW 1/4 IN.	3.98	3.65	367
GBG42244	STRIPE	367	4W WHITE 1/4 IN.	3.98	3.65	367
GBG42246	STRIPE	370	4BU CK BLU 1/4 IN.	3.98	3.65	367
GBG42248	STRIPE	369	4G GOLD 1/4 IN.	3.98	3.65	367
GBG42249	STRIPE	368	4BK BLACK 1/4 IN.	3.98	3.65	367

## VERY ECONOMICAL

(each sheet contains 28 characters - 2 full sets of numbers & AMA letters plus blank space for "cut-your-owns")

pressure-sensitive die-cut numbers and letters made of 100% cast vinyl, meets military specs for outdoor use!



BLACK

WHITE

RED

- just press 'em on anything
- paper thin
- unlike mylar & transfer decals, will not crack, peel or harden.
- instantly fuelproof
- paintable
- conforms to any angle or curve
- choice of red, white or black

## GRAPHICS

## COVERITE

### NEW GRAPHICS ALABETS

Now available are alphabet graphics from A to Z, 1" and 2", in red, white or black.

CCV41C10	COVERITE	7010	NUMBERS 1 IN RED	1.25	1.20	367
CCV41C11	COVERITE	7011	NUMBERS 1 IN WHT	1.25	1.20	367
CCV41C12	COVERITE	7012	NUMBERS 1 IN BLK	1.25	1.20	367
CCV41C20	COVERITE	7020	NUMBERS 2 IN RED	2.95	2.80	367
CCV41C21	COVERITE	7021	NUMBERS 2 IN WHT	2.95	2.80	367
CCV41C22	COVERITE	7022	NUMBERS 2 IN BLK	2.95	2.80	367
CCV41C30	COVERITE	7030	NUMBERS 3 IN RED	5.50	5.25	367
CCV41C31	COVERITE	7031	NUMBERS 3 IN WHT	5.50	5.25	367
CCV41C32	COVERITE	7032	NUMBERS 3 IN BLK	5.50	5.25	367
CCV41I10	COVERITE	7110	ALPHABET 1" RED	1.95	1.85	367
CCV41I11	COVERITE	7111	ALPHABET 1" WHT	1.95	1.85	367
CCV41I12	COVERITE	7112	ALPHABET 1" BLK	1.95	1.85	367
CCV41I20	COVERITE	7120	ALPHABET 2" RED	5.50	4.95	367
CCV41I21	COVERITE	7121	ALPHABET 2" WHT	5.50	4.95	367
CCV41I22	COVERITE	7122	ALPHABET 2" BLK	5.50	4.95	367

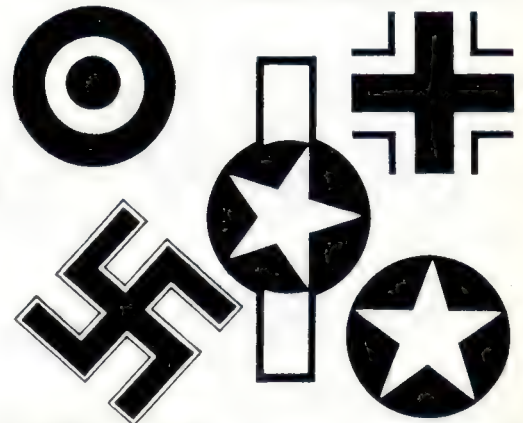
## JEMCO

These excellent decals are of the highest quality. See pages 54 - 56 for the Jemco Kits that these decal sheets originated from. These decal sheets are the same as what is provided in each of those kits. The size of each airplane determines decal sizes.

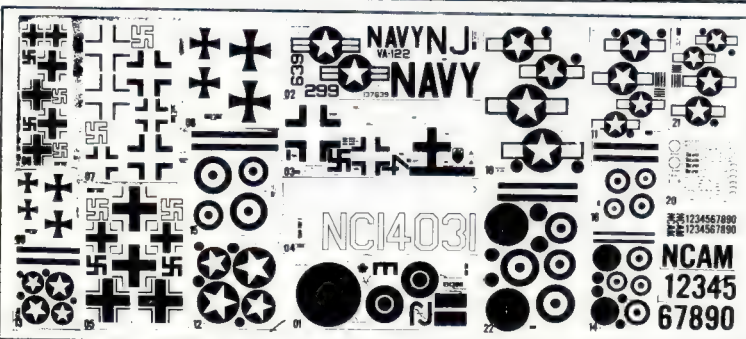
JEM42C10	JEMCO	J-1	DECALS PT-19	5.95	5.45	367
JEM42C20	JEMCO	J-2	DECALS P-51	5.95	5.45	367
JEM42C30	JEMCO	J-3	DECALS CORSAIR	5.95	5.45	367
JEM42C40	JEMCO	J-4	DECALS GERMAN	5.95	5.45	367
JEM42C50	JEMCO	J-5	DECALS JAP WWII ZERO	5.95	5.45	367

### Quality 'Decals

- Water Slide-Off
- Non-Crazing
- Authentic Colors
- Exact Scale
- Superior to Mylar
- Easy to Place



## PICA



PIC42C10	PICA	2001	DECAL RAF-LARGE	3.89	3.60	367
PIC42C20	PICA	2002	DECAL U.S. NAVY-LG.	3.89	3.60	367
PIC42C30	PICA	2003	DECAL GERMAN WW2-LG.	3.89	3.60	367
PIC42C40	PICA	2004	DECAL CIVILIAN	3.89	3.60	367
PIC42C50	PICA	2005	DECAL GERMAN WW2-LG-A	3.89	3.60	367
PIC42C60	PICA	2006	DECAL GERMAN WW2 SM.	2.99	2.85	367
PIC42C70	PICA	2007	DECAL GERMAN WW2 LG-B	3.89	3.60	367
PIC42C80	PICA	2008	DECAL GERMAN WW1 LG.	3.89	3.60	367
PIC42C90	PICA	2009	DECAL GERMAN WW1 SM.	2.99	2.85	367
PIC42I100	PICA	2010	DECAL U.S. WW2-LARGE	3.89	3.60	367
PIC42I110	PICA	2011	DECAL U.S. WW2-SMALL	2.99	2.85	367
PIC42I120	PICA	2012	DECAL U.S. WW1-LARGE	3.89	3.60	367
PIC42I130	PICA	2013	DECAL U.S. WW1-SMALL	2.99	2.85	367
PIC42I140	PICA	2014	DECAL RAF WW2-SMALL	2.99	2.85	367
PIC42I150	PICA	2015	DECAL RAF WW1-LARGE	3.89	3.60	367
PIC42I160	PICA	2016	DECAL RAF WW1-SMALL	2.99	2.85	367
PIC42I210	PICA	2021	DECAL US WW2 SM-BLUE	2.99	2.85	367
PIC42I220	PICA	2022	DECAL RAF WW2-LARGE	3.89	3.60	367

These pressure sensitive thin mylar sheeting decals are fuel and fade proof. The number in the bottom left of each sheet above corresponds to the last two digits in the descriptions at right.



# STRIPING/TRIM/DECALS

# TOP FLITE-MONOKOTE

## MONOKOTE MARKINGS

FA-770  
FA-770

U.S. AIR FORCE  
U.S. AIR FORCE

AMA-N-12  
34567890

Series of fuelproof, authentic aircraft markings; correct proportions and colors. Die-cut from self-adhesive MonoKote. Simply peel from backing and press down on model. Adheres to dope, plastic, fiberglass and, of course, Super MonoKote.

U.S. Navy (Black).....L-14B  
U.S. Navy (White).....L-14W  
U.S. Air Force.....L-11  
1" Numbers.....L-31  
2" Numbers.....L-32  
3" Numbers.....L-33  
Vintage Insignias, 2 shs....L-13  
Modern insignias, 2 shs....L-12

**MONOKOTE MARKINGS AND NUMERALS**—Printed and die-cut to apply the finishing touch to your model. Navy and Air Force insignia and numerals, AMA letters and numbers, 1", 2" and 3" sizes.

**MONOKOTE TRIM SHEETS**—Cut out your own trim designs, numerals and markings from wet (pressure sensitive) adhesive trim sheets, 5" x 36" or 28" x 36". Choose from 10 colors. Also available in 4 checkerboard designs, 5" x 36". Ideal for covering foam wings.

This material has a sticky adhesive and is recommended for trim areas, designs, color scheming, etc. No ironing required; it's just pressed down on top of the basic covering.

### 10 ULTRA-HIGH GLOSS COLORS TO CHOOSE FROM:

Missile Red	Jet White	Forest Green	Chrome *
International Orange	Mustang Aluminum	Aztec Gold	* Trim Sheet Only
Piper Yellow	Insignia Blue	Midnight Black	

### 4 CHECKER BOARD COMBINATIONS: Trim Sheets only — 5" x 36"

Red on White	Red on Clear	Black on White	Black on Clear
--------------	--------------	----------------	----------------

Shown 1/4 scale, a partial  
**CHECKER BOARD TRIM SHEET.**  
Over 600 1/4" squares per sheet  
of this distinctive design



### HOT STRIPE

Top Flite's new iron-on striping is super thin and flexible enough for intricate patterns and circular designs. It's low heat application makes it ideal for canopies, foam, and plastic parts. Comes in a unique material saving dispenser. Comes in 6 colors and 4 widths.

MCN42101	MCNCKOTE TRIM RED	1.39	1.30	368
MCN42102	MCNCKOTE TRIM ORANGE	1.39	1.30	368
MCN42103	MCNCKOTE TRIM YELLOW	1.39	1.30	368
MCN42104	MCNCKOTE TRIM WHITE	1.39	1.30	368
MCN42105	MCNCKOTE TRIM ALUMINUM	1.39	1.30	368
MCN42106	MCNCKOTE TRIM INSIGNIA BLUE	1.39	1.30	368
MCN42107	MCNCKOTE TRIM GREEN	1.39	1.30	368
MCN42108	MCNCKOTE TRIM GOLD	1.39	1.30	368
MCN42109	MCNCKOTE TRIM BLACK	1.39	1.30	368
MCN42110	MCNCKOTE TRIM CHROME	1.39	1.30	368
MCN42111	MCNCKOTE TRIM CKBRD RED/WHITE	1.89	1.80	368
MCN42112	MCNCKOTE TRIM CKBRD RED/CLEAR	1.89	1.80	368
MCN42113	MCNCKOTE TRIM CKBRD BLK/WHITE	1.89	1.80	368
MCN42114	MCNCKOTE TRIM CKBRD BLK/CLEAR	1.89	1.80	368
MCN42120	MCNCKOTE TRIM CAY-GLO REC	1.89	1.80	368
MCN42121	MCNCKOTE TRIM CAY-GLO ORANGE	1.89	1.80	368
MCN42122	MCNCKOTE TRIM SKY BLUE	1.89	1.80	368
MCN42511	MCNCKOTE MKNG US AIRFORCE L-11	2.19	2.10	368
MCN42512	MCNCKOTE MKNG MODERN L-12	3.85	3.55	368
MCN42513	MCNCKOTE MKNG VINTAGE L-13	3.85	3.55	368
MCN42514	MCNCKOTE MKNG NAVY BLK. L-14B	2.19	2.10	368
MCN42515	MCNCKOTE MKNG NAVY WHT. L-14W	2.19	2.10	368
MCN42531	MCNCKOTE MKNG 1 IN NUMBRS L-31	1.39	1.30	368
MCN42532	MCNCKOTE MKNG 2 IN NUMBRS L-32	1.59	1.50	368
MCN42533	MCNCKOTE MKNG 3 IN NUMBRS L-33	1.99	1.90	368
TCF42010	T.F. HOT STRIPE 1/16 REC	1.98	1.90	368
TCF42020	T.F. HOT STRIPE 1/16 YELLOW	1.98	1.90	368
TCF42030	T.F. HOT STRIPE 1/16 WHITE	1.98	1.90	368
TCF42040	T.F. HOT STRIPE 1/16 BLUE	1.98	1.90	368
TCF42050	T.F. HOT STRIPE 1/16 GOLD	1.98	1.90	368
TCF42060	T.F. HOT STRIPE 1/16 BLACK	1.98	1.90	368
TCF42110	T.F. HOT STRIPE 3/32 REC	2.69	2.55	368
TCF42120	T.F. HOT STRIPE 3/32 YELLOW	2.69	2.55	368
TCF42130	T.F. HOT STRIPE 3/32 WHITE	2.69	2.55	368
TCF42140	T.F. HOT STRIPE 3/32 BLUE	2.69	2.55	368
TCF42150	T.F. HOT STRIPE 3/32 GOLD	2.69	2.55	368
TCF42160	T.F. HOT STRIPE 3/32 BLACK	2.69	2.55	368
TCF42210	T.F. HOT STRIPE 1/8 REC	2.69	2.55	368
TCF42220	T.F. HOT STRIPE 1/8 YELLOW	2.69	2.55	368
TCF42230	T.F. HOT STRIPE 1/8 WHITE	2.69	2.55	368
TCF42240	T.F. HOT STRIPE 1/8 BLUE	2.69	2.55	368
TCF42250	T.F. HOT STRIPE 1/8 GOLD	2.69	2.55	368
TCF42260	T.F. HOT STRIPE 1/8 BLACK	2.69	2.55	368
TCF42310	T.F. HOT STRIPE 1/4 REC	3.69	3.40	368
TCF42320	T.F. HOT STRIPE 1/4 YELLOW	3.69	3.40	368
TCF42330	T.F. HOT STRIPE 1/4 WHITE	3.69	3.40	368
TCF42340	T.F. HOT STRIPE 1/4 BLUE	3.69	3.40	368
TCF42350	T.F. HOT STRIPE 1/4 GOLD	3.69	3.40	368
TCF42360	T.F. HOT STRIPE 1/4 BLACK	3.69	3.40	368

## TATONE

### SCALE INSTRUMENT KITS



TYPICAL INSTRUMENT  
PANEL MADE WITH  
TATONE INSTRUMENTS

Each kit contains 5 instrument cases turned and plated. All dials and glasses to fit. Selection of 20 typical instruments. Instructions and panel background included. Rim dia. and kit sizes:

1/4" - 5/16" - 3/8" - 7/16" - 1/2" - 5/8" - 11/16" - 13/16"

TAT20C08	TATONE SCALE INSTRUMENTS	1/4	4.00	3.70	368
TAT20C09	TATONE SCALE INSTRUMENTS	5/16	4.00	3.70	368
TAT20C10	TATONE SCALE INSTRUMENTS	3/8	5.00	4.50	368
TAT20C11	TATONE SCALE INSTRUMENTS	7/16	5.00	4.50	368
TAT20C12	TATONE SCALE INSTRUMENTS	1/2	5.75	5.20	368
TAT20C13	TATONE SCALE INSTRUMENTS	5/8	7.50	6.75	368
TAT20C14	TATONE SCALE INSTRUMENTS	11/16	8.50	7.65	368
TAT20C15	TATONE SCALE INSTRUMENTS	13/16	9.50	8.55	368

## TWINN-K

Pictured is the No. 922 Lotus decal sheet, just a sampling of the many high quality 1/12 scale car decals from Twinn-K.



TwK95916	TWINN-K 916 DECALS-PARMALAT	3.50	3.25	368
TwK95917	TWINN-K 917 DECALS-BMW	3.50	3.25	368
TwK95918	TWINN-K 918 DECALS-TYRELL	3.50	3.25	368
TwK95920	TWINN-K 920 DECALS-MICHELIN	3.50	3.25	368
TwK95921	TWINN-K 921 DECALS-GITANES	3.50	3.25	368
TwK95922	TWINN-K 922 DECALS-LOTUS	3.50	3.25	368
TwK95923	TWINN-K 923 DECALS-PORSCHÉ	3.50	3.25	368
TwK95924	TWINN-K 924 DECALS-ELF	3.50	3.25	368
TwK95925	TWINN-K 925 DECALS-WOLF	3.50	3.25	368



# WHEELS & WHEEL ACCESSORIES

## Wheels and Wheel Accessories

Because there are so many differing types of aircraft, we carry many different types of wheels. Dubro offers wheels that just have to be the most popular wheels going. They look sharp, and will take the beating most of us put our planes through.

Kraft wheels are more scale-like, and feature an axle that hides the retainer. They're made of Neoprene rubber, and look like the ones on modern civil aircraft. Those of you who build the Pipers, Cessnas, and Beech's ... consider Kraft's wheels.

For those of you who like "Golden Age", or earlier airplanes, then you would want wheels that Milman or Williams Brothers manufacture. Milman wheels are the only wheels we carry that are truly spoked. They're for any plane that has wheels with exposed spokes.

If the plane you're modeling had spoked wheels, but the spokes were covered with a canvas covering (the S.E.5a is an example), the "Vintage" wheels offered by Williams are just the thing. Carefully painted, they're very realistic.

Williams' "Golden Age" wheels are just right for your civilian biplane or monoplane from the 30's. These wheels are just right for your Wacos, Travelairs, Fleets, and Pietenpols.

If you're going the WWII military route, then wheels made by Robart are just the thing. They add a touch of realism that no other type of wheel can produce. They are truly scale, allowing you to portray wheels with or without spoked hubs.

For tailwheels, we offer small wheels by Williams and Ace R/C. They are just right for your taildragger or one of those very popular 1/2A planes.



### ACE 1/2" DIA. WHEELS

Here is a small, black, light, 1/2" diameter nylon wheel for those special applications such as tailwheels on .049 ships or main wheels on planes such as the "Littlest Stick."

WH5 Ace 1/2" Dia. Wheels, pr.

## ACE R/C

### ACE 1 1/2" and 1 3/4" DIA. WHEELS

These wheels are top quality, low weight, low drag, low bounce, and low cost. White nylon hubs, black tires, for a 3/32" D axle. From the small plane experts, Ace R/C.

WH15 Ace 1 1/2" D Wheels, pr.  
WH175 Ace 1 3/4" D Wheels, pr.



ACE21050	ACE WHEELS PR 1/2 IN #WH5	.35	.35	369
ACE21150	ACE WHEELS PR 1-1/2 IN #WH15	1.79	1.65	369
ACE21175	ACE WHEELS PR 1-3/4 IN #WH175	1.89	1.80	369

## BANNER

### OIL TEMPERED SPRING STEEL AXLE SHAFTS

WORKS  
GREAT ON  
GEAR LIKE  
BRIDI AND  
HALLCO!



FOR SHEET METAL LANDING GEAR  
IN 5 SIZES — 3/32, 1/8, 5/32, 5/32 EXTRA  
LONG, 3/16 EXTRA LONG

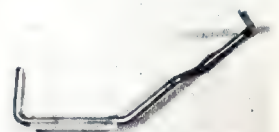
BAN261R0	BANNER AXLE SHAFTS 1/8 IN 2	1.85	1.65	369
BAN26132	BANNER AXLE SHAFTS 3/32 IN 2	1.70	1.55	369
BAN26152	BANNER AXLE SHAFTS 5/32 IN 2	2.00	1.80	369
BAN26162	BANNER AXLE 5/32 EXTRA-LONG 2	2.50	2.35	369
BAN26190	BANNER AXLE 3/16 EXTRA-LONG 2	2.75	2.50	369

## BRIDI



### Assembly Set #BRI26010

Pictured above, this set includes all parts needed to install main gear.



### TAILWHEEL ASSEMBLY #BRI26007

Solve those tail wheel strut bending problems with this simple, easy-to-install assembly. 3/32" dia. wire with a nylon bearing and installation tab.

BRI26007	R&E L-7 TAILWHEEL ASSEMBLY	.99	.95	369
BRI26010	R&E L-5 LANDING GEAR ASSEMBLY	2.25	2.15	369

## C.B. ASSOCIATES

NOW AVAILABLE IN HEAVY DUTY AND 1/4 SCALE SIZES.

### TAILWHEEL ASSEMBLY

This unit is scaled to fit the current crop of .60 powered bi-planes. Spring leaves may be added or subtracted, spring steering is positive up to a 65° angle. Leaf springs shipped straight so modeler can bend to desired curvature.

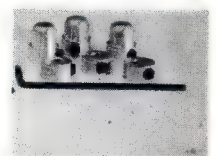


CBA26000	C B TAILWHEEL ASSEMBLY #5510	9.10	8.20	369
CBA26010	C B H.D. TAILWHEEL ASSY 5510HD	10.95	9.60	369
CBA26020	C B 1/4 SCL TAILWHL ASSY #5580	19.95	16.95	369

## FOX

### WHEEL COLLARS

Sizes from 3/32-3/16. Outer collar is acorn type covering wire end. 6-40 Allen screw for tighter grip.



FOX20332	FCX 90332 COLLARS 3/32 IN-3 PR	1.49	1.40	369
FOX20342	FCX 90342 COLLARS 1/8 IN-3 PR	1.49	1.40	369
FOX20352	FCX 90352 COLLARS 5/32 IN-3 PR	1.49	1.40	369
FOX20362	FCX 90362 COLLARS 3/16 IN-3 PR	1.49	1.40	369



# WHEELS & WHEEL ACCESSORIES

## WHEELS • DU-BRO • WHEELS

### BIG WHEELS

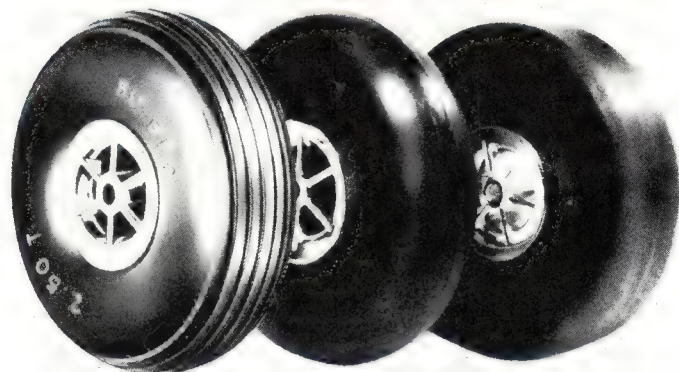
A WHOLE NEW LINE OF  
SMOOTH INFLATABLE

4", 4 1/2", 5", 5 1/2" & 6"



Smooth, inflatable wheels for those big airplanes. Features two piece bolt together hubs and hub caps. Wheels can be inflated (or deflated) thru a tiny valve in the side of the tire to the pressure you desire. Truly a remarkable, realistic looking wheel

400R	4" Diameter
450R	4-1/2" Diameter
500R	5" Diameter
550R	5-1/2" Diameter
600R	6" Diameter



TREAD (T) SMOOTH (R) SLICKS (S)

Low bounce, shock absorbing wheels featuring the 6 spoke dura hub are of finest quality and are hand inspected.

OTHER DUBRO WHEEL  
ACCESSORY ITEMS:

WHEEL COLLARS — PAGE 206  
WHEEL BRAKE — PAGE 206

1 75 T or R	Wheels 1-3/4"
2 00 T or R	Wheels 2"
2 25 T, R or S	Wheels 2-1/4"
2 50 T, R or S	Wheels 2-1/2"
2 75 T, R or S	Wheels 2-3/4"
3 00 T, R or S	Wheels 3"
3 25 T or R	Wheels 3-1/4"
3 50 T or R	Wheels 3-1/2"

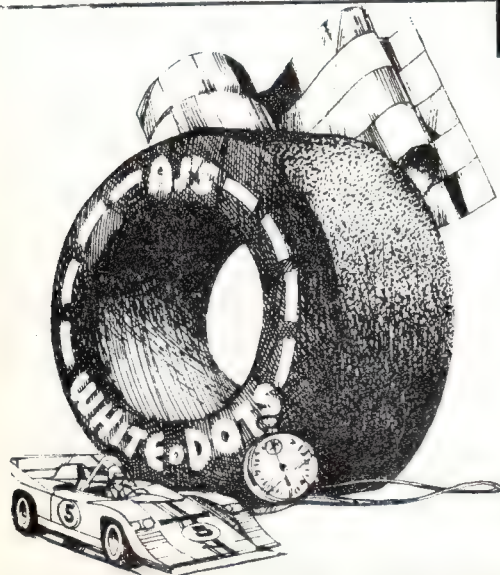
CLB21111	CUBRC	WHEEL	1	ONLY	175R	1	3/4
CLP21112	CUBRC	WHEEL	1	ONLY	200R	2	1N.
CLB21113	CUBRC	WHEEL	1	ONLY	225R	2	1/4
CLP21114	CUBRC	WHEEL	1	ONLY	250R	2	1/2
CLB21115	CUBRC	WHEEL	1	ONLY	275R	2	3/4
CLB21116	CUBRC	WHEEL	1	ONLY	300R	3	1N.
CLP21117	CUBRC	WHEEL	1	ONLY	325R	3	1/4
CLB21118	CUBRC	WHEEL	1	ONLY	350R	3	1/2
CLB21121	CUBRC	WHEEL	1	ONLY	175T	1	3/4
CLB21122	CUBRC	WHEEL	1	ONLY	200T	2	1N.
CLB21123	CUBRC	WHEEL	1	ONLY	225T	2	1/4
CLP21124	CUBRC	WHEEL	1	ONLY	250T	2	1/2
CLB21125	CUBRC	WHEEL	1	ONLY	275T	2	3/4
CLB21126	CUBRC	WHEEL	1	ONLY	300T	3	1N.
CLB21127	CUBRC	WHEEL	1	ONLY	325T	3	1/4
CLB21128	CUBRC	WHEEL	1	ONLY	350T	3	1/2
CLB21143	CUBRC	WHEEL	1	ONLY	225S	2	1/4
CLB21144	CUBRC	WHEEL	1	ONLY	250S	2	1/2
CLB21145	CUBRC	WHEEL	1	ONLY	275S	2	3/4
CLB21146	CUBRC	WHEEL	1	ONLY	300S	3	1N.
CLP21152	CUBRC	WHEEL	1	ONLY	400R	4	1N.
CLB21154	CUBRC	WHEEL	1	ONLY	450R	4	1/2
CLP21156	CUBRC	WHEEL	1	ONLY	500R	5	1N.
CLB21158	CUBRC	WHEEL	1	ONLY	550R	5	1/2
CLB21160	CUBRC	WHEEL	1	ONLY	600R	6	1N.
CLB21211	CUBRC	WHEELS-PAIR	175R	1	3/4		
CLB21212	CUBRC	WHEELS-PAIR	200R	2	1N.		
CLB21213	CUBRC	WHEELS-PAIR	225R	2	1/4		

1.45	1.30	370
1.55	1.40	370
1.70	1.55	370
1.80	1.60	370
1.90	1.70	370
2.05	1.85	370
2.15	1.95	370
2.30	2.10	370
1.45	1.30	370
1.55	1.40	370
1.70	1.55	370
1.80	1.60	370
1.90	1.70	370
2.05	1.85	370
2.15	1.95	370
2.30	2.10	370
1.70	1.55	370
1.80	1.60	370
1.90	1.70	370
2.05	1.85	370
3.98	3.95	370
4.98	4.95	370
5.98	5.95	370
6.98	6.95	370
7.98	7.95	370
2.40	2.15	370
2.60	2.35	370
2.80	2.50	370

DUB21214	DUBRC	WHEELS-PAIR	250R	2	1/2	3.00	2.70	370
DUB21215	DUBRC	WHEELS-PAIR	275R	2	3/4	3.20	2.90	370
DUB21216	DUBRC	WHEELS-PAIR	300R	3	1N.	3.40	3.05	370
DUB21217	DUBRC	WHEELS-PAIR	325R	3	1/4	3.60	3.25	370
DUB21218	DUBRC	WHEELS-PAIR	350R	3	1/2	3.80	3.40	370
DUB21221	DUBRC	WHEELS-PAIR	175T	1	3/4	2.40	2.15	370
DUB21222	DUBRC	WHEELS-PAIR	200T	2	1N.	2.60	2.35	370
DUB21223	DUBRC	WHEELS-PAIR	225T	2	1/4	2.80	2.50	370
DUB21224	DUBRC	WHEELS-PAIR	250T	2	1/2	3.00	2.70	370
DUB21225	DUBRC	WHEELS-PAIR	275T	2	3/4	3.20	2.90	370
DUB21226	DUBRC	WHEELS-PAIR	300T	3	1N.	3.40	3.05	370
DUB21227	DUBRC	WHEELS-PAIR	325T	3	1/4	3.60	3.25	370
DUB21228	DUBRC	WHEELS-PAIR	350T	3	1/2	3.80	3.40	370
DUB21243	DUBRC	WHEELS-PAIR	225S	2	1/4	2.80	2.50	370
DUB21244	DUBRC	WHEELS-PAIR	250S	2	1/2	3.00	2.70	370
DUB21245	DUBRC	WHEELS-PAIR	275S	2	3/4	3.20	2.90	370
DUB21246	DUBRC	WHEELS-PAIR	300S	3	1N.	3.40	3.05	370
DUB21252	DUBRC	WHEELS-PAIR	400R	4	1N.	7.95	7.25	370
DUB21254	DUBRC	WHEELS-PAIR	450R	4	1/2	9.95	8.95	370
DUB21256	DUBRC	WHEELS-PAIR	500R	5	1N.	11.95	10.75	370
DUB21258	DUBRC	WHEELS-PAIR	550R	5	1/2	13.95	12.50	370
DUB21260	DUBRC	WHEELS-PAIR	600R	6	1N.	15.95	14.25	370
DUB20246	DUBRC	246 2 AXLES	1 1/4X1 1/8			2.00	1.90	258
DUB20247	DUBRC	247 2 AXLES	1 1/4X5/32			2.00	1.90	258
DUB20248	DUBRC	248 2 AXLES	2X5/32			2.00	1.90	258
DUB20249	DUBRC	249 2 AXLES	2X3/16			2.00	1.90	258

## TWINN-K

1/12 SCALE CAR TIRES



FROM  
INDIANAPOLIS—  
RACING CAPITAL  
OF THE WORLD

## TWINN-K OFFERS THE RACER:

TWINN-K HAS QUALITY CONTROL AND YEARS OF EXPERIENCE  
MILLIONS OF AJ'S ARE SOLD EVERY YEAR

THE CORRECT TIRE FOR THE TRACK OR TRACK CONDITION  
IS ALWAYS AVAILABLE FROM AJ'S

DEPENDABILITY-TIRES PRODUCED BY THE WORLD'S  
LARGEST AND MOST EXPERIENCED MODEL CAR TIRE  
MANUFACTURER—TWINN-K, INC. OF INDIANAPOLIS

AJ'S WHITE DOTS ARE IDENTIFIED—DON'T ACCEPT  
SUBSTITUTES

A CHOICE OF RUBBER COMPOUNDS

A READY-TO-RACE TIRE

TWK96801	TWINN-K 801 FRONT-SOFT	4.00	3.70	370
TWK96803	TWINN-K 803 FRONT-MEDIUM	4.00	3.70	370
TWK96805	TWINN-K 805 FRONT-FIRM	4.50	4.15	370
TWK96811	TWINN-K 811 REAR-SOFT	5.50	4.95	370
TWK96813	TWINN-K 813 REAR-MEDIUM	6.00	5.40	370
TWK96815	TWINN-K 815 REAR-FIRM	6.50	5.85	370



# WHEELS & WHEEL ACCESSORIES

## FOX

### FOX R. C. WHEELS

*Look Better, Last Longer.*

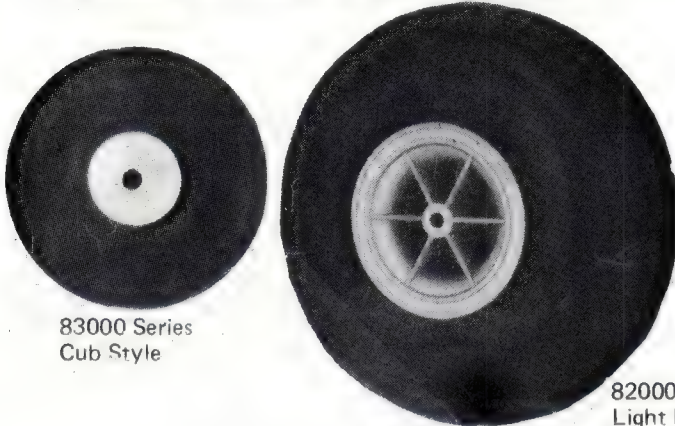
Fox R. C. wheels are made from aluminum, just like real airplane wheels. Most other model wheels are made from plastic which wallows out on the axle quickly, and will melt if you happen to touch it with a hot soldering iron. Fox aluminum wheels run true, wear almost forever, and look realistic.

The 82000 series wheels have cast aluminum hubs, and are proportioned like today's private plane. The 2 1/4" and larger have real web spokes, just like modern private planes. The 2" and smaller have simulated spokes. All are equipped with realistically proportioned, hollow core molded tires with substantial wall sections and enough stiffness to support the weight of a moderately heavy plane.

The 83000 series use the same tires, but the wheel has a highly polished completely machined hub assembly, rounded in the manner of the old Taylor Cub wheels.

The 84000 series tires are a bit narrower, fitted with a die cast wheel with six cast spokes on the outside wheel half and a disc on the inside. The tires on the 84000 series are proportioned to simulate the higher pressure wheels used in military airplanes of the World War II era.

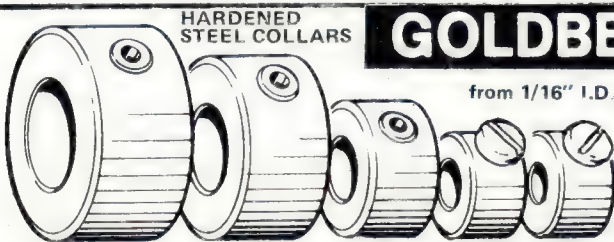
All Fox R. C. wheels have accurately sized holes, run true on the axle, and are well balanced. You will be happy with your Fox R. C. wheels.



83000 Series  
Cub Style

82000 Series  
Light Plane  
Style

FCX21110	FCX 82100 WHEELS 1 LIGHT PLANE	1.79	1.70	371
FCX21112	FCX 82125 WHEELS 1 1/4 LT PLNE	1.99	1.90	371
FCX21115	FCX 82150 WHEELS 1 1/2 LT PLNE	2.19	2.10	371
FCX21117	FCX 82175 WHEELS 1 3/4 LT PLNE	2.49	2.35	371
FCX21120	FCX 82200 WHEELS 2 LIGHT PLANE	2.79	2.65	371
FCX21122	FCX 82225 WHEELS 2 1/4 LT PLNE	3.09	2.85	371
FCX21125	FCX 82250 WHEELS 2 1/2 LT PLNE	3.39	3.10	371
FCX21127	FCX 82275 WHEELS 2 3/4 LT PLNE	3.69	3.40	371
FCX21130	FCX 82300 WHEELS 3 LIGHT PLANE	4.09	3.75	371
FCX21132	FCX 82325 WHEELS 3 1/4 LT PLNE	4.59	4.20	371
FCX21135	FCX 82350 WHEELS 3 1/2 LT PLNE	5.09	4.60	371
FCX21137	FCX 82375 WHEELS 3 3/4 LT PLNE	5.69	5.10	371
FCX21140	FCX 82400 WHEELS 4 LIGHT PLANE	6.19	5.55	371
FCX21212	FCX 83125 WHEELS 1 1/4 CUB STL	2.39	2.25	371
FCX21215	FCX 83150 WHEELS 1 1/2 CUB STL	2.69	2.55	371
FCX21217	FCX 83175 WHEELS 1 3/4 CUB STL	2.99	2.85	371
FCX21220	FCX 83200 WHEELS 2 CUB STYLE	3.29	3.00	371
FCX21222	FCX 83225 WHEELS 2 1/4 CUB STL	3.59	3.30	371
FCX21225	FCX 83250 WHEELS 2 1/2 CUB STL	3.89	3.67	371
FCX21227	FCX 83275 WHEELS 2 3/4 CUB STL	4.49	4.15	371
FCX21230	FCX 83300 WHEELS 3 CUB STYLE	4.99	4.60	371
FCX21232	FCX 83325 WHEELS 3 1/4 CUB STL	5.49	4.95	371
FCX21235	FCX 83350 WHEELS 3 1/2 CUB STL	5.99	5.40	371
FCX21237	FCX 83375 WHEELS 3 3/4 CUB STL	7.49	6.75	371
FCX21240	FCX 83400 WHEELS 4 CUB STYLE	8.99	8.10	371
FCX21245	FCX 83450 WHEELS 4 1/2 CUB STL	10.99	9.60	371
FCX21250	FCX 83500 WHEELS 5 CUB STYLE	12.99	11.35	371
FCX21255	FCX 83550 WHEELS 5 1/2 CUB STL	14.99	13.10	371
FCX21260	FCX 83600 WHEELS 6 CUB STYLE	16.99	14.45	371



HARDENED  
STEEL COLLARS

## GOLDBERG

from 1/16" I.D. up to 3/16"

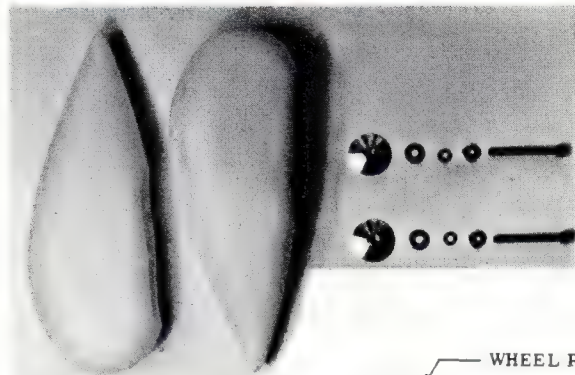
4 per  
pkg.

WC-316 WC-532, WC-180, WC-332, WC-116,

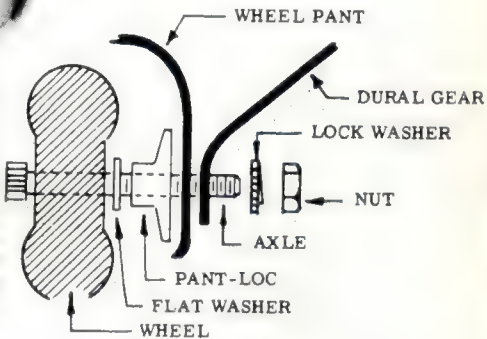
GBG20200	GBG 162 WC-116 COLLARS 1/16"	.89	.85	371
GBG20202	GBG 163 WC-332 COLLARS 3/32"	.89	.85	371
GBG20204	GBG 164 WC-180 COLLARS 1/8"	.89	.85	371
GBG20206	GBG 165 WC-532 COLLARS 5/32"	.89	.85	371
GBG20208	GBG 166 WC-316 COLLARS 3/16"	.89	.85	371

## GEE BEE

### WHEEL PANTS



Beautifully molded wheel pants ready to paint - Virtually indestructible - Exclusive "Pant-Loc" and axle included with each pair for easy installation - Designed for 2 1/2 to 3 1/4 inch wheels with ample space for free turning wheel - Directions for attaching to wire landing gear included - Rugged and light - No need to remove for any flying conditions.



GEE21400 GEE BEE .40-.60 WHEELS PANTS

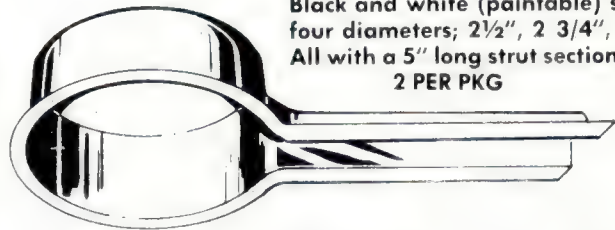
9.95 8.95 371

## JCM

### WHEEL WELL LINERS FOR RETRACT GEAR

Lightweight, fast and easy to install. Keeps dirt and oil out of your wing. Black and white (paintable) styrene in four diameters; 2 1/2", 2 3/4", 3", 3 1/4". All with a 5" long strut section.

2 PER PKG

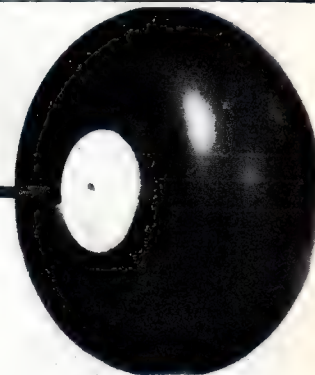


JCM21250	JCM WHEEL WELL LINERS 2 1/2 PR	1.49	1.40	371
JCM21275	JCM WHEEL WELL LINERS 2 3/4 PR	1.49	1.40	371
JCM21300	JCM WHEEL WELL LINERS 3" PR	1.49	1.40	371
JCM21325	JCM WHEEL WELL LINERS 3 1/4 PR	1.49	1.40	371

## TREXLER

Made of the finest latex rubber, these wheels offer toughness and long life. The only model airplane wheels that are inflatable — make them as bouncy as you like. Use inflator air pump. 4 sizes sold in pairs only.

This  
Valve  
Makes  
Them  
Superior



TRX20C01	TREXLER AIR PUMP	4.00	3.80	371
TRX21275	TREXLER WHEELS PAIR 2 3/4 IN	6.00	5.40	371
TRX21300	TREXLER WHEELS PAIR 3 IN.	7.00	6.30	371
TRX21350	TREXLER WHEELS PAIR 3 1/2 IN.	8.00	7.20	371
TRX21450	TREXLER WHEELS PAIR 4 1/2 IN.	9.00	8.10	371



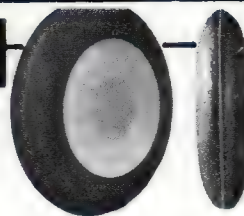
# WHEELS & WHEEL ACCESSORIES

Kraft high-quality hidden axle wheels are designed for general model airplane use and feature interchangeable bushings for three common axle sizes. (No drilling is required.)

These easily-assembled and true-running wheels include puncture-proof Neoprene tires and a hidden wheel collar for scale appearance. Available in either streamline or scale profile.

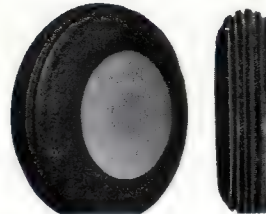


## KRAFT



STREAMLINE PROFILE

DIAMETER	PART NUMBER
1 1/4"	200-099
2"	200-080
2 1/4"	200-081
2 1/2"	200-082
2 3/4"	200-083



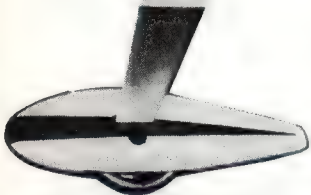
SCALE PROFILE

DIAMETER	PART NUMBER
1 1/4"	200-073
1 1/2"	200-074
2"	200-075
2 1/4"	200-076
2 1/2"	200-077
2 3/4"	200-078
3"	200-079

KRA21273	KRAFT 200-073 SCL WHEELS 1 1/2	2.99	2.85	372
KRA21274	KRAFT 200-074 SCL WHEELS 1 3/4	3.19	2.95	372
KRA21275	KRAFT 200-075 SCL WHEELS 2	3.39	3.10	372
KRA21276	KRAFT 200-076 SCL WHEELS 2 1/4	3.69	3.40	372
KRA21277	KRAFT 200-077 SCL WHEELS 2 1/2	3.99	3.65	372
KRA21278	KRAFT 200-078 SCL WHEELS 2 3/4	4.19	3.85	372

KRA21279	KRAFT 200-079 SCL WHEELS 3	4.49	4.15	372
KRA21280	KRAFT 200-080 SLM WHEELS 2	3.69	3.40	372
KRA21281	KRAFT 200-081 SLM WHEELS 2 1/4	3.99	3.65	372
KRA21282	KRAFT 200-082 SLM WHEELS 2 1/2	3.99	3.70	372
KRA21283	KRAFT 200-083 SLM WHEELS 2 3/4	4.19	3.85	372
KRA21299	KRAFT 200-099 SLM WHEELS 1 3/4	3.19	3.00	372

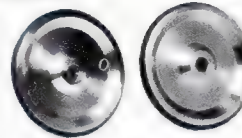
## JOINED EPOXY WHEEL PANTS



The Prather Fiberglass Epoxy Wheel Pants are aerodynamically designed to reduce drag. They are made to fit on dural gear and are easy to install. Wheel pants weigh less than 1 oz. each yet are extremely strong. Complete with axle retainer, flat head socket cap screws and allen wrench.

## PRATHER

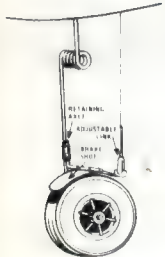
## ALUMINUM RACING WHEELS



SIZE: 2 1/4" DIA.

The Prather slimline racing wheels are machined from bar stock aluminum. They are equipped with tough rubber tires. Each wheel weighs less than 1 oz. Designed for low drag that is needed in pylon racing.

## NOSE WHEEL BRAKE



This type of front wheel brake is used by many of the top pattern flyers. It is simple and easy to hook up, no springs or catches to cause you trouble. Our brake works every time, by pressure on the front tire. Complete brake and linkage assembly included.

## AXLE RETAINERS



These new type axle retainers are designed to hold wheels firmly on dural gear. They work excellent for flush mounting of wheels pants. Comes complete with flat head socket cap screws and allen wrench.

PRA21390	PRATHER 6010 RACING WHEELS	9.95	8.95	372
PRA21400	PRATHER 6030 EPOXY WHEEL PANTS	12.95	11.95	372
PRA21410	PRATHER 6050 AXLE RETAINERS	2.49	2.35	372
PRA21470	PRATHER 6060 NOSEWHEEL BRAKE	2.49	2.35	372

# SONIC-SYSTEMS

## PNEUMATIC DISC BRAKE FROM SONIC SYSTEMS

A reliable approach to the problem of wheel brakes for model aircraft, and with additional application in racing cars, is the new TaxiMaster air operated disc brake system, according to the manufacturer, Sonic Systems, P.O. Box 192, Whippany, New Jersey 07981.

Sonic Systems claims that TaxiMaster provides positive stopping power for planes weighing up to 15 pounds, though it suggests two brake units on the main gear for craft weighing more than 8 pounds. For tail draggers, Sonic suggests that two control valves be installed and operated by "left" or "right" on the rudder servo. For trike gears, the brake control valve should be operated by the last 1/16" of elevator servo arm on the "down" elevator side.



The brake assembly comprises two basic parts: a disc whose hub engages the spokes on many 2 1/2" and larger six-spoke wheels (including Kavan, Goldberg, Du-Bro and Royal); and a backing plate which is actually a shallow air cylinder and dual ring piston with a cork face. The piston is keyed to the cylinder to prevent rotation and the cork face is oiled (engine oil will not impair its efficiency).

The cylinder is secured to the 5/32" axle by a lock screw. When assembled on the axle and pushed together, the cylinder is filled by the piston, thus reducing air consumption to that which is in the line from the control valve.

The pressure tubing is small and flexible, and can be neatly routed down the strut by inserting a piece of .050 music wire that has been bent to shape.



# WHEELS & WHEEL ACCESSORIES

## MILMAN

### SCALE AND STAND-OFF SCALE SPOKE WHEELS



Vintage, wire-spoked wheels which are precision built—look authentic and delicate, but take the abuse of any RC application. Foam tires, treaded or smooth, nylon bushings, and formed steel rims and steel spokes beautifully nickel-plated make them the perfect accessory for any scale or stand-off scale model. Milman Spokes are available 2-3/8 to 5 in., making them perfect for a wide range of aircraft models. Finish off your scale model right—with spokes!

MIL21237	MILMAN WHEELS #237-T 2 3/8 IN	23.25	22.25	373
MIL21238	MILMAN WHEELS #237-S 2 3/8 IN	22.00	21.00	373
MIL21262	MILMAN WHEELS #262-T 2 5/8 IN	23.25	22.25	373
MIL21263	MILMAN WHEELS #262-S 2 5/8 IN	22.00	21.00	373
MIL21325	MILMAN WHEELS #325-T 3 1/4 IN	25.50	24.50	373
MIL21326	MILMAN WHEELS #325-S 3 1/4 IN	24.25	23.25	373
MIL21350	MILMAN WHEELS #350-T 3 1/2 IN	25.50	24.50	373
MIL21351	MILMAN WHEELS #350-S 3 1/2 IN	24.25	23.25	373
MIL21437	MILMAN WHEELS #437-T 4 3/8 IN	26.50	25.50	373
MIL21438	MILMAN WHEELS #437-S 4 3/8 IN	25.50	24.50	373
MIL21462	MILMAN WHEELS #462-T 4 5/8 IN	26.50	25.50	373
MIL21463	MILMAN WHEELS #462-S 4 5/8 IN	25.50	24.50	373
MIL21475	MILMAN WHEELS #475-T 4 3/4 IN	27.50	26.50	373
MIL21476	MILMAN WHEELS #475-S 4 3/4 IN	26.50	25.50	373
MIL21500	MILMAN WHEELS #500-T 5 IN	27.50	26.50	373
MIL21501	MILMAN WHEELS #500-S 5 IN	26.50	25.50	373

## ROCKET CITY

### EASY ACTION WHEEL BRAKES

2 brakes per package  
#RCS20004



RCS20004 ROCKET CITY #04 WHEEL BRAKES

3.00 2.80 373

## NEW Scale Diamond Tread & Straight Tread Wheels

ROBART'S NEW SCALE WHEELS ARE ACCURATE DOWN TO THE TREADS AND SIDEWALL MARKINGS. THERE ARE THREE HUB STYLES AVAILABLE WITH SPOKE TYPE (P, S), SMOOTH CAMP, 40), OR OPEN WHEEL (SPORT). BEING THE OPTIONS, EVEN BETTER THE MODELER CAN NOW MATCH THE PROPER TREAD DESIGN TO HIS PLANE WITH EITHER CROSSHATCH BLOCK TREAD OR GROOVED TREAD AVAILABLE. THE SIDEWALL MARKINGS ON THESE TIRES ARE TRULY BEAUTIFUL, HAVING BEEN FAITHFULLY COPIED FROM ORIGINAL TIRES OF WWII. THE U.S. VERSION IS THE ALMOST UNIVERSAL GOODYEAR 32 x 8 "ALL WEATHER" STYLE USED ON NUMEROUS ALLIED AIRCRAFT. THE GERMAN VERSION IS A CONTINENTAL 690 x 200, TAKEN DIRECTLY FROM THE FW 190 (UNIVERSAL ON MOST GERMAN FIGHTERS). THESE RAISED MOLDINGS ADD THAT EXTRA TOUCH TO ANY SCALE UNDERCARRIAGE.

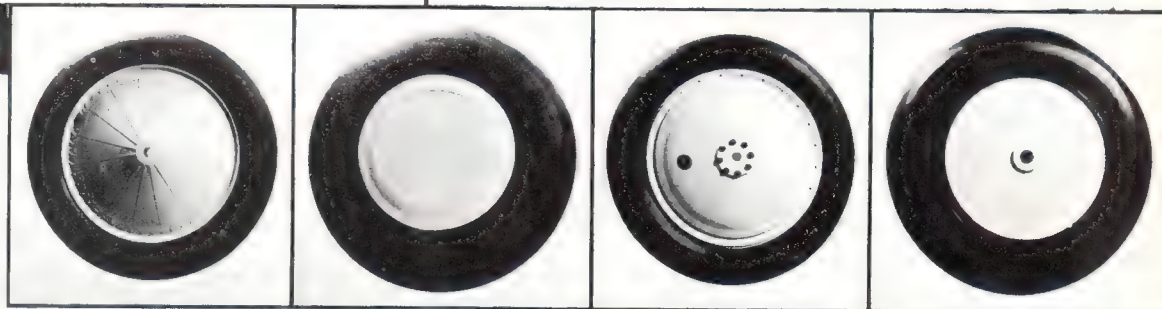
COMING SOON 5 1/2" & 6" Dia for 1/4 SCALE



## ROBART

MIL21125	MILMAN WHEELS #250-1 ONLY 2-1/2 IN	2.50	2.45	373
MIL21127	MILMAN WHEELS #275-1 ONLY 2 3/4 IN	2.75	2.70	373
MIL21130	MILMAN WHEELS #300-1 ONLY 3 IN	3.00	2.95	373
MIL21132	MILMAN WHEELS #325-1 ONLY 3-1/4 IN	3.25	3.20	373
MIL21135	MILMAN WHEELS #350-1 ONLY 3-1/2 IN	3.75	3.70	373
MIL21137	MILMAN WHEELS #375-1 ONLY 3-3/4 IN	4.00	3.95	373
MIL21225	MILMAN WHEELS #250 PAIR 2-1/2 IN	4.99	4.50	373
MIL21226	MILMAN WHEELS #250 PR. DIAMOND TREAD	5.49	4.95	373
MIL21227	MILMAN WHEELS #275 PAIR 2-3/4 IN	5.49	4.95	373
MIL21228	MILMAN WHEELS #275 PR. DIAMOND TREAD	5.99	5.40	373
MIL21230	MILMAN WHEELS #300 PAIR 3 IN	5.99	5.40	373
MIL21231	MILMAN WHEELS #300 PR. DIAMOND TREAD	6.49	5.85	373
MIL21232	MILMAN WHEELS #325 PAIR 3-1/4 IN	6.49	5.85	373
MIL21233	MILMAN WHEELS #325 PR. DIAMOND TREAD	6.99	6.30	373
MIL21235	MILMAN WHEELS #350 PAIR 3-1/2 IN	7.49	6.75	373
MIL21236	MILMAN WHEELS #350 PR. DIAMOND TREAD	7.99	7.20	373
MIL21237	MILMAN WHEELS #375 PAIR 3-3/4 IN	7.99	7.20	373
MIL21239	MILMAN WHEELS #375 PR. DIAMOND TREAD	8.49	7.65	373
MIL21240	MILMAN WHEELS #400 PAIR 4 IN	8.49	7.65	373
MIL21241	MILMAN WHEELS #400 PR. DIAMOND TREAD	8.99	8.10	373
MIL21255	MILMAN WHEELS #550 PAIR 5-1/2 IN	.00	.00	373
MIL21256	MILMAN WHEELS #550 PR. DIAMOND TREAD	.00	.00	373
MIL21260	MILMAN WHEELS #600 PAIR 6 IN	.00	.00	373
MIL21261	MILMAN WHEELS #600 PR. DIAMOND TREAD	.00	.00	373

## WILLIAMS BROS. Scale Wheels



### VINTAGE AIRCRAFT

Typical of the high-pressure type used during World War I and on to the mid '30s. Available in sizes ranging from 3/4" to 5" diameter.

### SMOOTH CONTOUR

This type of wheel and tire was popular from the late 30's through early World War II. Semi-pneumatic tires. Sizes range from 3/4" to 5 1/4" diameter.

### GOLDEN AGE

Disc type wheel extensively employed from the late 20s through early 30s. Sizes range from 3/4" to 5" diameter.

### BALLOON

Balloon tire wheels are ideal for aircraft models of the 1930s. Available sizes range from 2 1/2" through 5 1/4" diameter.

WBR21118	BALLOON WHEELS 118 2 1/2 IN	3.95	3.65	373
WBR21119	BALLOON WHEELS 119 3 1/4 IN	6.50	5.85	373
WBR21120	BALLOON WHEELS 120 3 3/4 IN	8.95	7.95	373
WBR21121	BALLOON WHEELS 121 4 1/2 IN	12.95	11.35	373
WBR21122	BALLOON WHEELS 122 5 1/4 IN	16.95	14.40	373
WBR21124	VINTAGE WHEELS 124 3/4 IN	.80	.75	373
WBR21125	VINTAGE WHEELS 125 1 IN	.90	.85	373
WBR21126	VINTAGE WHEELS 126 1-1/4 IN	1.15	1.10	373
WBR21127	VINTAGE WHEELS 127 1-1/2 IN	1.45	1.40	373
WBR21128	VINTAGE WHEELS 128 1-7/8 IN	2.40	2.30	373
WBR21129	VINTAGE WHEELS 129 2-1/2 IN	3.90	3.60	373
WBR21130	VINTAGE WHEELS 130 3-1/8 IN	6.25	5.65	373
WBR21131	VINTAGE WHEELS 131 3-3/4 IN	8.25	7.45	373
WBR21132	VINTAGE WHEELS 132 4-3/8 IN	9.90	8.90	373
WBR21133	VINTAGE WHEELS 133 5 IN	11.90	10.40	373
WBR21134	VINTAGE WHEELS 134 6-5/8 IN	21.75	17.95	373
WBR21136	SM CONTOUR WHEELS 136 3/4 IN	.80	.75	373
WBR21137	SM CONTOUR WHEELS 137 1 IN	.90	.85	373

WBR21138	SM CONTOUR WHEELS 138 1-1/4 IN	1.15	1.10	373
WBR21139	SM CONTOUR WHEELS 139 1-1/2 IN	1.45	1.40	373
WBR21140	SM CONTOUR WHEELS 140 2-1/4 IN	3.15	3.00	373
WBR21141	SM CONTOUR WHEELS 141 2-3/4 IN	4.50	4.15	373
WBR21142	SM CONTOUR WHEELS 142 3-1/4 IN	6.30	5.65	373
WBR21143	SM CONTOUR WHEELS 143 3-3/4 IN	8.60	7.75	373
WBR21144	SM CONTOUR WHEELS 144 4-1/2 IN	11.90	10.40	373
WBR21145	SM CONTOUR WHEELS 145 5-1/4 IN	14.45	12.65	373
WBR21146	GOLDEN AGE WHEELS 146 3/4 IN	.80	.75	373
WBR21147	GOLDEN AGE WHEELS 147 1 IN	.90	.85	373
WBR21148	GOLDEN AGE WHEELS 148 1-1/4 IN	1.15	1.05	373
WBR21149	GOLDEN AGE WHEELS 149 1-1/2 IN	1.45	1.40	373
WBR21150	GOLDEN AGE WHEELS 150 1-7/8 IN	2.40	2.30	373
WBR21151	GOLDEN AGE WHEELS 151 2-1/2 IN	3.90	3.60	373
WBR21152	GOLDEN AGE WHEELS 152 3-1/8 IN	6.25	5.65	373
WBR21153	GOLDEN AGE WHEELS 153 3-3/4 IN	8.25	7.45	373
WBR21154	GOLDEN AGE WHEELS 154 4-3/8 IN	9.90	8.90	373
WBR21155	GOLDEN AGE WHEELS 155 5 IN	11.90	10.40	373
WBR21650	GOLDEN AGE WHEELS 650 6-1/2 IN	21.75	17.95	373



# WING KITS

## WING KITS

Occasionally we dump one in, but then arrive at the crater amazed to see that the plane has emerged nearly unscathed — but the wing is totalled. It cannot be repaired ... so what do we do?

Since wings seem to be the parts of the airplane that get damaged the most, Tower Hobbies carries a large assortment of replacement wing kits. These kits come in either all-wood, or foam wings with a covering.

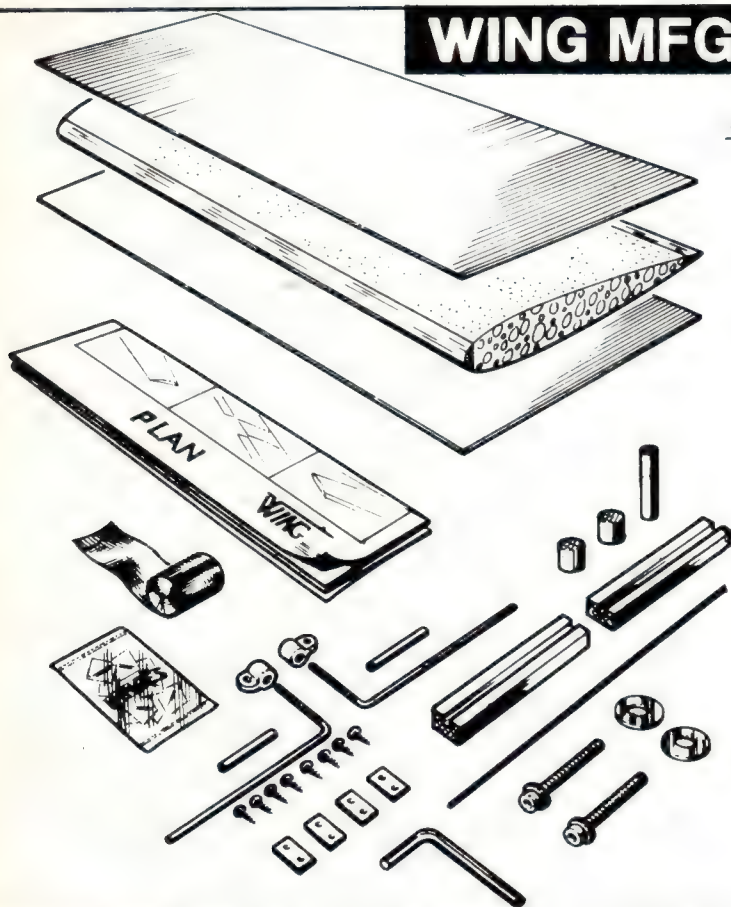
The all-wood wing kits are made by the manufacturers as replacements for the kits they make. Both Carl Goldberg models and Jensen make wing kits for their planes. These wings are identical to the wings in the full-airplane kit.

If you have another type of aircraft, you're not out of luck. Wing manufacturing makes foam wing kits for a veritable multitude of airplanes. Foam wings have an advantage in that they are quickly built, and also that they are inexpensive.

If you have not built a foam wing, never fear. Wing provides complete directions for the covering and assembly of the wings they provide. All you need is some Crazy Tape, Dave Brown Sorghum, Goldberg Blue Goo, or some Wilhold spray adhesive for applying the sheeting; and some Hobbypoxy Formula II epoxy for joining and strapping the center joint.

## WING MFG. CO.

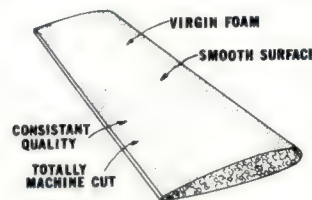
*We've got the wing your looking for*



FREE WING LOADING CHART  
IN EVERY KIT

### REPLACEMENT WING KITS FEATURE:

- The finest grade virgin bead foam accurately cut on our scientifically designed machinery.
- High density bond board Wing Skins — easy to put on and finish .018 thickness.
- Fiberglass reinforcement cloth for joining center section.
- Hinges & balsa leading & trailing edges as required.
- Aileron Linkages furnished for Strip Aileron Wings.
- Illustrated step by step instruction plan.
- Nylon wing hold down bolts with wrench & washers.
- Copper cutting wire for making cut-outs.
- Wing tips and Aileron material not included.



Building a straight wing isn't easy and it takes a lot of time and patience. Our wing kits solve this by offering fast and easy assembly plus the additional strength of foam and stress skin construction. If you have a favorite ship that needs a new wing or are building a new bird, try one of our wings.

You get precision cut cores, balsa leading and trailing edges (where required), wing skins, hinges, hold down bolts, landing gear blocks and dowels (where required), reinforcement tape for center joint, strip aileron linkage assembly (where required), copper wire for making servo cutouts etc., and complete step by step illustrated construction plan.

# ACE

## Ace Mini Foam Wing FOR THE SCRATCH BUILDER



### CONSTANT CHORD

SPAN: 35 in.  
AREA: 192.5 in.  
ROOT CHORD: 5 1/2 in.  
TIP CHORD: 5 1/2 in.  
WEIGHT: approx. 3 oz.

Constant Wing

### TAPERED CHORD

SPAN: 35 in.  
AREA: 186.25 in.  
ROOT CHORD: 5 1/2 in.  
TIP CHORD: 4 in.  
WEIGHT: approx. 2.5 oz.

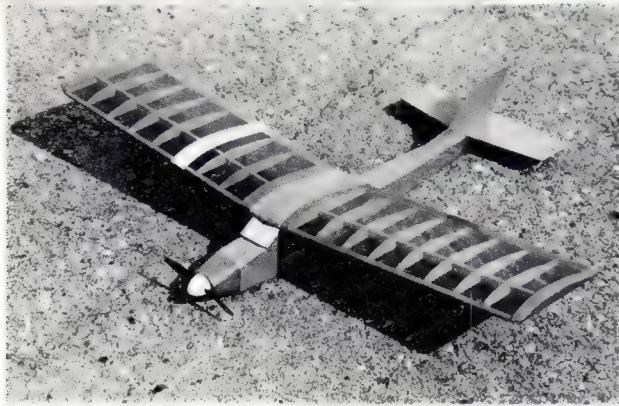
Tapered Wing

WIN21212	WING INSTALLATION KIT #212	4.50	4.15	374
WIN75002	WING FOAM WING LOVE MACHINE	13.45	12.35	116
WIN75101	WING FOAM WING RCM TRAINER 6C	18.45	16.95	374
WIN75102	WING FOAM WING BASIC TRAINER	13.45	12.35	374
WIN75103	WING FOAM WING QUICKIE 500	13.45	12.35	374
WIN75104	WING FOAM WING MAN TRAINER 4C	13.45	12.35	374
WIN75105	WING FOAM WING RCM TRAINER 4C	13.45	12.35	374
WIN75201	WING FOAM WING LITTLE STICK	13.45	12.35	374
WIN75202	WING FOAM WING UGLY STICK	18.45	16.95	374
WIN75203	WING FOAM WING SWEET STICK	13.45	12.35	374
WIN75205	WING FOAM WING FLEDGLING	13.45	12.35	374
WIN75206	WING FOAM WING SR. FALCON	18.45	16.95	374
WIN75207	WING FOAM WING FALCON 56	13.45	12.35	374
WIN75208	WING FOAM WING SKYLARK	13.45	12.35	374
WIN75209	WING FOAM WING A-RAY	13.45	12.35	374
WIN75210	WING FOAM WING H-RAY	13.45	12.35	374
WIN75211	WING FOAM WING SUPER KAOS 40	13.45	12.35	374
WIN75212	WING FOAM WING SKYLANE 62	19.45	17.90	374
WIN75214	WING FOAM WING CONTENDER 40	13.45	12.35	374
WIN75215	WING FOAM WING CONTENDER	18.45	16.95	374
WIN75216	WING FOAM WING GAZARIATOR	18.45	16.95	374
WIN75217	WING FOAM WING HEADMASTER	13.45	12.35	374
WIN75218	WING FOAM WING TRAINERMASTER	13.45	12.35	374
WIN75219	WING FOAM WING SIG KACET	13.45	12.35	374
WIN75221	WING FOAM WING JR BOX FLY	13.45	12.35	374
WIN75223	WING FOAM WING MEN TRAINER	16.45	14.95	374
WIN75224	WING FOAM WING BRIDI SUN FLI	13.45	12.35	374
WIN75301	WING FOAM WING KAOS	18.45	16.95	374
WIN75303	WING FOAM WING MACH-1	18.45	16.95	374
WIN75304	WING FOAM WING KWIK FLY-TAPERD	18.45	16.95	374
WIN75305	WING FOAM WING SUPER KAOS 60	18.45	16.95	374
WIN75306	WING FOAM WING STRIKEMASTER	18.45	16.95	374
WIN75307	WING FOAM WING SPORTMASTER	18.45	16.95	374
WIN75309	WING FOAM WING PHOENIX-6	18.45	16.95	374
WIN75311	WING FOAM WING DIRTY BIRDY	18.45	16.95	374
WIN75314	WING FOAM WING SIG KOUGAR	17.45	15.95	374
WIN75501	WING FOAM WING T. F. P-40	18.45	16.95	374
WIN75502	WING FOAM WING T. F. P-39	18.45	16.95	374
WIN75503	WING FOAM WING T.F. P-51	19.45	17.90	374
WIN75504	WING FOAM WING PLATT T-28 B	21.45	19.75	374
WIN75505	WING FOAM WING PLATT FW-19C	21.45	19.75	374
WIN75701	WING FOAM WING AEROMASTER	21.45	19.75	374
WIN75703	WING FOAM WING SMITH MINIPLANE	21.45	19.75	374

ACE2C001 ACE TAPER FOAM WING 3.50 3.35 374  
ACE2C002 ACE CONSTANT FOAM WING 3.50 3.35 374

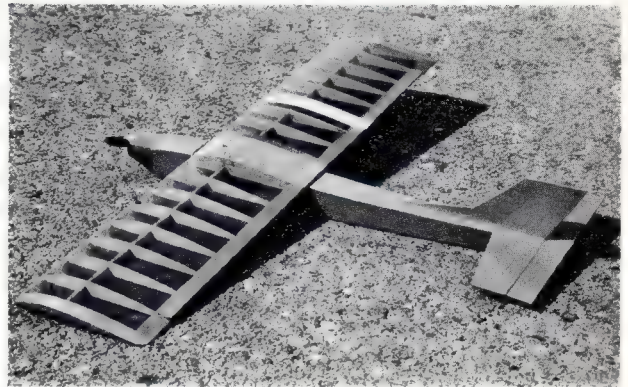


## ASTRO FLIGHT (AFI)



The **ASTRO SPORT** is a pert little sport trainer designed for the popular Astro 05 flight system. It can be built with a high wing and cabin for rudder and elevator control, or as a shoulder wing with ailerons for pylon racing and aerobatic flying. Span 37 inches, wing area 292 sq. inches, weight 28 oz. with a light weight 3 channel radio. **1019**

AFI72019 AFI 1019 05 ASTRO SPORT 24.95 19.95 375  
AFI72020 AFI 1020 15 ASTRO SUPER SPORT 34.95 27.95 375



A bigger brother to the Astro Sport shown above, the **ASTRO SUPER SPORT** is designed for the powerful Astro 15 flight system. The Super Sport can be built with a high wing and cabin for rudder and elevator control, or as a shoulder wing for aerobatics or pylon racing. This baby really gets up and goes. Wing span 48 inches, wing area 480 sq. in., weight with three channels and Astro 15 3 pounds **1020**

## ORIGINAL DELUXE SAFE-T CAPS

**PROTECT YOUR INVESTMENT . . . Let others see at a glance what frequency you're using . . . THE MODEL YOU SAVE WILL BE YOUR OWN!**

TCW99420	TOWER FREQUENCY HAT 72.080	8.50	7.95	375
TCW99421	TOWER FREQUENCY HAT 72.160	8.50	7.95	375
TCW99422	TOWER FREQUENCY HAT 72.240	8.50	7.95	375
TCW99423	TOWER FREQUENCY HAT 72.320	8.50	7.95	375
TCW99424	TOWER FREQUENCY HAT 72.400	8.50	7.95	375
TCW99425	TOWER FREQUENCY HAT 72.960	8.50	7.95	375
TCW99426	TOWER FREQUENCY HAT 75.640	8.50	7.95	375

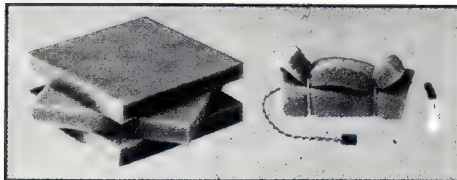


## TOWER

One size fits all.

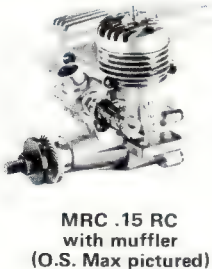
Color of caps match all 72 & 75 frequency colors **PLUS LARGE BOLT NUMBERS** provide added protection. Easier to see than small frequency flags.

## KRAFT R/C Installation Foam



Used in our own personal airplanes as well as the test aircraft at the factory, this foam has excellent vibration dampening and shock absorbing qualities. Package of three 6" x 6" x 3/4" pieces. **P/N 200-203**

KRA20203 KRAFT 200-203 FCAM 6X6X1/2 3 .98 .95 375



## MRC

MRC now has a new .15 RC engine made especially for them. This outstanding engine includes the best features of the imports (O.S. Max and Enya). It features smooth throttle transition, long life, and an excellent finish. It comes with a muffler. Since we didn't have a picture yet, we pictured the closest thing we had, an O.S. Max.

**MRC .15 RC with muffler (O.S. Max pictured)**

MRC01C15 MRC .15 RC WITH MUFFLER 39.95 29.95 375

## GOLDBERG



**PRECISION BALANCER**

**EASY TO USE!**

Whether you fly a Falcon or a Phoenix (or anything in between), our new Precision Balancer is designed to precisely balance your model — quickly and accurately! Convenient and easy to use, your hands are free for shifting radio gear or weights to achieve the exact balance you desire. And after balancing, the stand disassembles for compact storage.



**No. 289 (BAL-1)**

GBG20149 GBG 289 PRECISION BALANCER 5.95 5.35 375



# PRICE LISTING SECTION

This PRICE LISTING SECTION lists every item that is pictured, listed, or referred to in the illustrated pages of this catalog. For each item a Tower Stock Number, a brief description, the retail price, the Tower price, and the page number where the item can be found in the illustrated sections of the catalog is given.

## HOW TO USE THIS SECTION

As you are looking through the fully illustrated pages of this catalog you will find that on each page or in each manufacturer's section there is a line or block of lines that gives the stock number, description, retail price, and Tower price for the item(s) on that page. This product price listing information is repeated here in this section along with all the other price listings on all other pages to form a complete listing of every product contained in this catalog.

In addition, each item line in this section has the page number where you can find the product within the fully illustrated section of the catalog. This gives you just one more index to use in conjunction with the Manufacturer's index (page 5) and the Product index (page 6 and 7) to help you find what you're looking for.

If you're "browsing" around, then the illustrated pages are the way to shop. If you know exactly what you want and which manufacturer makes it, then flipping to this section is the easiest and fastest way to look up stock numbers and prices. The choice is yours—it should be!

## TOWER STOCK NUMBERS

All Tower Hobbies Stock Numbers are made up of three letters and five numbers. The three letters are an abbreviation of the manufacturer's name. The five numbers distinguish between items of that manufacturer's line. A complete list of every manufacturer we carry is listed below along with their three letter abbreviations.

Please use these stock numbers when ordering, either by phone or by mail, as this will allow us to process your order much faster and with far less chance of a mistake.

## HOW TO ORDER

Please consult the ordering instructions on Page 396 and then use the order forms on Pages 397 and 399.

Ace R/C . . . . . ACE	Flite Line . . . . . FLL	Michigan Hobby . . . . . MHH	Sealactor . . . . . SEA
Aero Composites . . . . . ARO	Flyline Models . . . . . FLY	Microflame . . . . . MFL	Semco . . . . . SEM
Aeromarine . . . . . AEM	Fox . . . . . FOX	Midwest . . . . . MID	Shinsei . . . . . SHI
Aerotrend . . . . . AER	Fuji . . . . . FUJ	Mile High Models . . . . . MHM	Sig Mfg . . . . . SIG
Air Capitol Models . . . . . ACM	Fusite (GloBee) . . . . . FUS	Miller . . . . . MLL	Simmons . . . . . SIM
Air-Forms . . . . . AFM	Futaba . . . . . FUT	Milman . . . . . MIL	Skyglas . . . . . SKY
Airtronics . . . . . AIR	Gas Model Products . . . . . GAS	Model Dynamics . . . . . MOD	Slim Line Mufflers . . . . . SLM
A-Justo-Jig . . . . . AJJ	Gee Bee . . . . . GBE	Model Products . . . . . MPC	Bob Smith . . . . . SMI
Ambroid . . . . . AMB	Gemini . . . . . GEM	Monokote . . . . . MON	Solarfilm . . . . . SOL
American R/C . . . . . ARC	General Electric Corp. . . . . GEC	MPS Products . . . . . MPS	Sonic Systems . . . . . SOS
Andrews . . . . . AND	GMC Models . . . . . GMC	M.R.C. . . . . MRC	Sonic Tronics . . . . . STR
Applied Design (ADC) . . . . . ADC	Goldberg . . . . . GBG	Steve Muck's . . . . . MUC	Southwestern . . . . . SOU
Associated . . . . . ASC	Grish Bros . . . . . GRI	N.E. Aerodynamics . . . . . NOA	Spickler . . . . . SPI
Astro Flight (AFI) . . . . . AFI	Halloco . . . . . HAL	Norco . . . . . NOR	Squadron Publications . . . . . SQU
B&D . . . . . B&D	H.B. Engines . . . . . HBE	North Pacific . . . . . NOP	Sta-Brite . . . . . SSS
Badger . . . . . BAD	Hi-Flight . . . . . HIF	Bud Nosen Models . . . . . NOS	Stafford . . . . . STA
Banner . . . . . BAN	High Point . . . . . HIP	Octura . . . . . OCT	Sterling . . . . . STE
Bearcat . . . . . BEA	Harry Higley . . . . . HIG	Ohio Superstar . . . . . OHS	Sullivan . . . . . SUL
Bolink . . . . . BOL	Hobby Helps . . . . . HBH	O.P.S. . . . . OPS	Superior Smoke . . . . . SUP
Bridi . . . . . BRI	Hobbypoxy . . . . . HOB	Online . . . . . ORL	Supertigre . . . . . STG
Dave Brown Products . . . . . DBP	Hot Stuff . . . . . HOT	O.S. Max . . . . . OSM	Su-Pr-Line . . . . . SPL
C&D . . . . . C&D	House of Balsa . . . . . HOU	Pactra (Aerogloss) . . . . . PAC	Sureflite . . . . . SUR
CB Associates . . . . . CBA	Hughey Boats . . . . . HUY	Pactra (Formula U) . . . . . PAC	Tarno Aero . . . . . TAR
Cass Engineering . . . . . CAS	International . . . . . INT	Panavise . . . . . PAN	Tatone . . . . . TAT
Coverite . . . . . COV	J.C. Specialties (JCM) . . . . . JCM	Peerless . . . . . PEL	Technopower . . . . . TEC
Cox . . . . . COX	Jemco . . . . . JEM	Perry . . . . . PER	Titebond . . . . . TIT
Craft-Air . . . . . CRA	Jensen . . . . . JEN	Pica . . . . . PIC	Top Flite . . . . . TOP
Custom Model Prod. . . . . CMP	Jet Hangar Hobbies . . . . . JET	Power Pacer . . . . . LRT	Tornado Props . . . . . GRI
D&R . . . . . D&R	JR Propo . . . . . JRP	Prather . . . . . PRA	Tower Hobbies . . . . . TOW
Daca . . . . . DAC	J.R. Sales Co. . . . . JRS	Precision Boat Mfg . . . . . PRE	Trexler . . . . . TRX
DA Enterprises . . . . . DAE	K&B . . . . . K&B	Procision . . . . . PRO	Twinn-K Inc. . . . . TWK
Dean's . . . . . DEA	K&S . . . . . K&S	Proctor . . . . . PRC	Bob Violett . . . . . VIO
Devcon . . . . . DEV	Kalmbach . . . . . KAL	Quadra . . . . . QUA	V.K. Models . . . . . VKK
Dodgson Design . . . . . DOD	Kraft . . . . . KRA	R+S . . . . . R+S	Vortac . . . . . VOR
Dremel . . . . . DRE	L.R. Taylor Co . . . . . LRT	RCM Magazine . . . . . RCM	Webra . . . . . WEB
Du-Bro . . . . . DUB	Lanier . . . . . LAN	Ram Models . . . . . RAM	Westcoast Marine . . . . . WES
Dumas . . . . . DUM	Latrax . . . . . LAT	Rev-Up . . . . . REV	Wilhold . . . . . WLH
Eastcraft Specialties . . . . . EAS	Leisure . . . . . LEI	Rhom (Rom-Air) . . . . . ROM	Williams Bros . . . . . WBR
Econokote . . . . . ECO	Mallory Models . . . . . MAL	Robert . . . . . ROB	Wing Mfg. . . . . WIN
Edson . . . . . EDS	Marks Models . . . . . MAR	Rocket City . . . . . RCS	X-Acto . . . . . XAC
Enya . . . . . ENY	Master-Kit . . . . . MAS	Rossi . . . . . ROS	Zingali . . . . . JOZ
Estes . . . . . EST	Master Airscrew . . . . . MAA	Royal Products . . . . . ROY	Zinger . . . . . ZIN
Eveready . . . . . EVE	Marix . . . . . MRX	S&O . . . . . S&O	
Flitecraft . . . . . FLT	Bob Martin . . . . . MTN	Sanwa (Cox) . . . . . SAN	
Fliteglas Models . . . . . FLI	M.E.N. . . . . MEN	Scozzi (Jet Hangar) . . . . . JET	

All prices listed in this section are current as of July 1980 and are subject to change without notice.



STOCK NO	DESCRIPTION	RETAIL PRICE	TOWER PRICE	PAGE #	STOCK NO	DESCRIPTION	RETAIL PRICE	TOWER PRICE	PAGE #
ACE11630	ACE REED VALVE ENGINE THROTTLE	2.50	2.35	315	AIR20514	AIRTRONICS 9514 DFLUXE SKID	2.50	2.40	336
ACE14C10	ACE PM 1/2 A MOTOR MOUNT	1.29	1.20	320	AIR20524	AIRTRONICS 9524 STD TUBING	22.95	18.95	336
ACE18C05	ACE SPR1 SPINNER 1 IN.	1.10	1.05	363	AIR20525	AIRTRONICS 9525 HEAVY TUBING	24.95	19.95	336
ACE18C10	ACE SPR2 SPINNER 1-5/16 IN.	1.29	1.20	363	AIR71101	AIRTRONICS 101 SQUARE SOA	26.95	21.95	124
ACE19C19	ACE 38K19 NILLITE BATT.&CHARGER	14.95	13.95	278	AIR71102	AIRTRONICS 102 C-TEE 1/2 A	23.95	19.55	25
ACE22C01	ACE TAPER FOAM WING	3.50	3.35	374	AIR71104	AIRTRONICS 104 S-TEE	23.95	19.75	25
ACE20002	ACE CONSTANT FOAM WING	3.50	3.35	374	AIR71205	AIRTRONICS 205 SUPER QUESTOR	42.50	32.95	124
ACE21050	ACE WHEELS PR 1/2 IN W/H5	.35	.35	369	AIR71206	AIRTRONICS 206 AQUILA	79.95	59.95	125
ACE21150	ACE WHEELS PR 1-1/2 IN W/H15	1.79	1.65	369	AIR71208	AIRTRONICS 208 OLYMPIC II	54.95	40.95	124
ACE21175	ACE WHEELS PR 1-3/4 IN W/H175	1.89	1.80	369	AIR71210	AIRTRONICS 210 AQUILA GRANDE	139.95	104.95	125
ACE72100	ACE DICK'S DREAM	13.50	11.45	22	AIR72303	AIRTRONICS 303 WARLOCK .05	32.50	25.95	25
ACE72104	ACE 'ACE HIGH' GLIDER	21.50	15.95	127	AIR73304	AIRTRONICS 304 WARLOCK .40	69.95	52.45	25
ACE72105	ACE WHIZARD	20.50	15.50	22	AIR81421	94401 SERVO-MICRO, BB, WATERPROOF	49.95	39.95	203
ACE72107	ACE PACER	21.50	15.95	20	AIR81431	94421 SERVO-MINI	39.95	31.95	203
ACE72108	ACE MACH-NONE	21.50	15.95	20	AIR81541	94551 SERVO-STD., BB, WATERPROOF	49.95	39.95	203
ACE72109	ACE SUPER PACER	32.95	23.95	21	AIR81543	94553 SERVO-BB, RETRACT	49.95	39.95	203
ACE72111	ACE LITTLEST STICK	4.95	4.70	22	AIR81551	94509 SERVO-H.C., WATERPROOF	49.95	39.95	203
ACE72112	ACE AEROCOMMANDER SHRIKE	29.95	22.50	22	AIR81561	94581 SERVO-SAIL WINCH	64.95	51.95	203
ACE72113	ACE GUPPY 02 POWER GLIDER	9.95	8.45	22	AIR82200	98200 SERVO TRAY-AILERON-MINI	1.50	1.45	203
ACE72114	ACE 50L212 ALPHA .049-.09	21.50	15.95	22	AIR82202	98202 SERVO TRAY-AILERON-STD.	1.50	1.45	203
ACE72115	ACE 50L213 ALPHA .15	39.95	27.95	21	AIR82210	98210 SERVO TRAY-MINI-2+1	2.50	2.40	203
ACE72200	ACE ALL STAR HIPE	25.50	18.95	22	AIR82212	98212 SERVO TRAY-STD.-2+1	2.50	2.40	203
ACE72210	ACE 50L210 1/2 A GLH II FOAM	17.95	13.95	22	AIR82221	98221 SERVO TRAY-MICRO-SXS	2.50	2.40	203
ACE81210	ACE 14G20 BANTAM SERVO KIT	23.95	22.75	198	AIR82231	98231 SERVO TRAY-STD.-3 SXS	2.50	2.40	203
ACE81211	ACE 14G20C BANTAM SERVO ASSMLD	28.95	27.50	198	AIR82301	98301 SERVO ARM-MICRO-466POINT	.75	.70	203
ACE81220	ACE 14G20R BANTAM MIDGET KIT	26.95	25.50	198	AIR82302	98302 SERVO ARM-MICRO-4 POINT	.75	.70	203
ACE81221	ACE 14G20RC BANTAM MIDGET ASSM	31.95	29.95	198	AIR82303	98303 SERVO ARM-MICRO-ADJUST.	1.50	1.45	203
ACE81230	ACE 14G20M MICRC SERVO KIT	27.95	26.50	198	AIR82311	98311 SERVO ARM-STD.-466 POINT	.75	.70	203
ACE81231	ACE 14G20MC MICRO SERVO ASSMLD	32.95	30.95	198	AIR82314	98314 SERVO ARM-STD.-ADJUSTBLE	1.50	1.45	203
ACE83104	ACE 14K104C SERVO REVERSER	11.50	10.95	198	AIR83C02	95002 RX NICAD-FLAT 225PA	15.95	13.55	203
ACE83189	ACE 14K89 BANTAM HI-POWER CONV	1.00	.95	198	AIR83C03	95003 RX NICAD-SQUARE 500MA	15.95	13.55	203
ACE86389	ACE 38K9 TX NICAD CONV. KIT	24.95	22.95	278	AIR83C04	95004 RX NICAD-FLAT 500MA	15.95	13.55	203
ACE86911	ACE 34K2 METEREC VARI-CHARGER	18.95	17.95	278	AIR83C05	95005 RX NICAD-FLAT 1200MA	24.95	21.20	203
ACE86913	ACE 34K45 DUAL UNI-CHARGER KIT	8.50	8.10	278	AIR83C10	95010 TX NICAD-.9V 500MA	32.95	27.95	203
ACE86915	ACE 34G15 DIGIPACE I ASSEMBLED	94.95	89.95	309	AIR83101	97001 SW HARNESS W/CHARGE JACK	5.95	5.45	203
ACE87C50	ACE 11G35 5 CH TX CONVERSION	21.95	20.85	198	AIR83110	97010 6 IN. EXTENSION CABLE	3.50	3.30	203
ACE87C70	ACE 11G37 7 CH TX CONVERSION	26.95	25.50	198	AIR83111	97011 12 IN. EXTENSION CABLE	3.95	3.75	203
ACE87118	ACE 12G18 SINGLE DECK RECEIVER	33.95	31.95	198	AIR83120	97020 SERVO DUAL 'V' HARNESS	4.95	4.50	203
ACE87128	ACE 12G28 DOUBLE DECK RECEIVER	33.95	31.95	198	AIR83130	97030 DRY BATTERY TEST CABLE	2.95	2.80	203
ACE87207	ACE 11G207 TX ONLY-SILVER 7	159.95	149.95	199	AIR85522	AIR. 9922 FLITE PK-2CH/2SERVOS	114.95	89.95	203
ACE87500	11G500 EXPONENTIAL RATE OPTION	17.95	16.95	199	AIR85532	AIR. 9932 FLITE PK-3CH/2SERVOS	119.95	92.95	203
ACE87505	11G505 ELECTRONIC MIXER OPTION	11.95	11.35	199	AIR85542	AIR. 9942 FLITE PK-4CH/2SERVOS	149.95	116.95	203
ACE87510	11G510 PROGRAMMABLE BUTTON OPT	8.95	8.50	199	AIR85564	AIR. 9964 FLITE PK-6CH/4SERVOS	229.95	178.95	203
ACE88120	12G28-2B FLITE PK W/2 BANTAMS	74.95	69.95	198	AIR85720	AIRTRONICS 92720 2 CH RECEIVER	54.95	43.95	203
ACE88140	12G28-4B FLITE PK W/4 BANTAMS	114.95	106.95	198	AIR85730	AIRTRONICS 92730 3 CH RECEIVER	59.95	47.95	203
ACE88931	10G30 3 CH. KIT W/STD. BANTAM	119.95	111.95	198	AIR85740	AIRTRONICS 92740 4 CH RECEIVER	69.95	55.95	203
ACE88932	10G30R 3 CH. KIT W/BANTAM MCGT	124.95	115.95	198	AIR85760	AIRTRONICS 92760 6 CH RECEIVER	89.95	71.95	203
ACE88972	10G107R SILVER 7 W/STD. BANTAM	284.95	264.95	199	AIR88211	AIRTRONICS 9120 2CH/2SERV/1 ST	149.95	119.95	203
ACE88973	10G107R SILVER 7 W/BANTAM MCGT	294.95	274.95	199	AIR88232	AIRTRONICS 9121 2CH/2SERV/2 ST	149.95	119.95	203
ACE74C00	AIR CAPITCL MODELS FR-100 RTF	149.95	144.95	23	AIR88312	AIRTRONICS 9130 3CH/2SERV/2 ST	169.95	135.95	202
ADC31121	ADC 121 MINI GLUE TIPS	.99	.95	288	AIR88321	AIRTRONICS 9131 3CH/2SERV/2ST	219.95	172.95	202
ADC39111	ADC 111 MINI SANDER	1.75	1.65	288	AIR88412	AIRTRONICS 9140 4CH/4SERV/2 ST	279.95	219.95	202
ADC39131	ADC 131 RUFF-STUFF 36 ASSORTED	21.24	17.50	288	AIR88612	AIRTRONICS 9160 6CH/4SERV/2 ST	329.95	259.95	202
ADC39141	ADC 141 11 INCH TEE-BAR	1.99	1.90	288	AIR89721	AIRTRON. 93721 CRYSTALS 72.080	14.95	13.45	203
ADC39142	ADC 142 22 INCH TEE-BAR	2.99	2.85	288	AIR89722	AIRTRON. 93722 CRYSTALS 72.160	14.95	13.45	203
ADC39161	ADC 161 MINI-SAW 10" HACKSAW	4.99	4.60	288	AIR89723	AIRTRON. 93723 CRYSTALS 72.240	14.95	13.45	203
ADC39162	ADC 162 MINI-SAW BLADES	1.25	1.20	288	AIR89724	AIRTRON. 93724 CRYSTALS 72.320	14.95	13.45	203
AEW12C20	AEROMARINE ELECT. ROAT STARTER	129.95	116.95	313	AIR89725	AIRTRON. 93725 CRYSTALS 72.400	14.95	13.45	203
AEW20830	AEROMARINE 830 WATER TRAP	2.50	2.40	141	AIR89726	AIRTRON. 93726 CRYSTALS 72.460	14.95	13.45	203
AEW20831	AEROMARINE 831 STUFFING ROX	6.00	5.40	141	AIR89751	AIRTRON. 93751 CRYSTALS 75.640	14.95	13.45	203
AEW20833	AEROMARINE 833 TRIM TABS	9.95	8.95	141	AJ33101	A-JUSTO-JIG WING-FUSE JIG KIT	59.95	44.95	287
AEW20851	AEROMARINE 851 EASY RAILER	3.50	3.30	141	AJ33202	A-JUSTO-JIG FUSE-JIG ONLY	10.00	8.00	287
AEW4C20	AERCTREND FUEL BULB 2 OZ.	3.95	3.65	330	AMB31104	AMBRIO REGULAR CEMENT 3.2 OZ	1.45	1.40	272
AEW4C40	AERCTREND FUEL BULB 4 OZ.	4.95	4.55	330	AND72001	ANDREWS ARC-1 S-RAY	34.95	26.25	27
AEW4C80	AERCTREND FUEL BULB 8 OZ.	5.95	5.35	330	AND72002	ANDREWS ARC-2 H-RAY	39.95	29.95	27
AEW5100	AERCTREND TUBING 3 FT.-SMALL	1.89	1.80	330	AND73005	ANDREWS ARC-5 TRAINERMASTER	52.95	39.70	26
AEW5110	AERCTREND TUBING 3 FT.-MEDIUM	1.89	1.80	330	AND73006	ANDREWS ARC-6 A-RAY	44.95	33.75	26
AEW5120	AERCTREND TUBING 3 FT.-LARGE	1.89	1.80	330	AND73008	ANDREWS ARC-8 BIG-H RAY	49.95	37.50	27
AEW5130	AERCTREND TUBING 3 FT.-X-LARGE	1.89	1.80	330	AND73009	ANDREWS ARC-9 QUICKRAY-500	47.95	35.95	27
AEW59C00	AERCTREND END CF THE LINE STL.	.99	.95	330	AND73C10	ANDREWS ARC-10 X-RAY	52.95	35.95	26
AFI09505	AFI ASTRC MARINE 05 SYS W/BATT	44.95	35.95	228	AND74C03	ANDREWS ARC-3 AEROMASTER TOO	84.95	63.95	26
AFI09510	AFI ASTRC MARINE 10 SYS W/BATT	89.95	71.95	228	AND74004	ANDREWS ARC-4 SPORTMASTER	74.95	56.20	26
AFI09515	AFI ASTRC MARINE 15 SYS W/BATT	129.95	97.45	228	ARC77000	AMERICAN RC REVOLUTION .40	239.00	227.00	195
AFI09805	AFI ASTRO 05 ELEC MOTOR ONLY	10.95	8.95	228	ARC77040	REVCLUTCH W/COLLECTIVE PITCH	289.95	275.45	195
AFI09902	AFI ASTRO 02 ELEC MOTOR W/BATT	32.95	26.35	220	ARC77260	REV. II COMMANDER W/COLL. PITCH	385.00	335.95	195
AFI09905	AFI ASTRO 05 ELEC MOTOR W/BATT	59.95	47.95	228	ARC77500	AMERICAN RC .40 MANTIS	149.00	133.95	194
AFI09910	AFI ASTRO 10 ELEC MOTOR W/BATT	99.95	79.95	228	ARC78200	REVCLUTCH MAIN ROTOR BLADES	8.75	8.30	195
AFI09915	AFI ASTRO 15 ELEC MOTOR W/BATT	119.95	89.95	228	ARC78201	REVCLUTCH TAIL ROTOR BLADES	2.25	2.20	195
AFI09925	AFI ASTRO 25 ELEC MOTOR W/BATT	149.95	112.95	228	ARC78205	REVCLUTCH II MAIN ROTOR BLDES	12.75	12.10	195
AFI09942	AFI ASTRO 02 TWIN MOTORS W/BAT	49.95	39.95	228	ARC74000	AERC COMPOSITES PHOENIX 8	89.95	84.95	23
AFI09944	AFI ASTRO 05 TWIN MOTORS W/BAT	74.95	59.95	228	ASC94100	ASSOCIATED RC100 CAR KIT-1/8	125.00	87.50	172
AFI09946	AFI ASTRO 15 TWIN MOTORS W/BAT	175.00	131.25	228	ASC94200	ASSOCIATED RC200 CAR KIT-1/8	195.00	129.95	172
AFI09950	AFI ASTRC 25 TWIN MOTORS W/BAT	210.00	157.50	228	ASC94250	ASSOCIATED RC300 CAR KIT-1/8	190.00	127.95	173
AFI10C00	AFI 4003 AIRCRAFT SW. HARNESS	7.95	7.50	279	ASC94300	3000 BASIC CHASSIS & HOWE KIT	54.00	40.50	174
AFI10C01	AFI 4002 CHARGE CORC-WCLIPS	9.95	8.95	279	ASC94301	3001 COMPETITION BASIC KIT	66.00	49.50	174
AFI10C02	AFI 4001 CHARGE CORC-AUTO	9.95	8.95	279	ASC94312	3012 6-CELL CAR KIT W/O BODY	102.00	73.95	174
AFI10C03	AFI 4006 6/12 V. BATT. CHARGER	9.95	7.95	279	ASC94324	3024 6-CELL CAR ASSM. W/O BODY	120.00	85.95	174
AFI10C04	AFI 4005 RAPID CHARGER	29.95	25.45	279	ASC94380	3800 WEIGHTSAVER COMP. PACKAGE	22.00	17.95	175
AFI10C05	AFI 4004 FIELD CHARGER	49.95	39.95	279	ASC95012	2109L 1/8 BODY-PORSCHE 30KL	19.95	16.95	172
AFI10C06	AFI ANALYZER-RAPID CHARGER	42.50	33.95	309	ASC95021	2112L 1/8 BODY-GRENWD. CORVETTE	19.95	16.95	172
AFI10007	AFI ELEC. SPEED CONTROL-KRAFT	59.95	47.95	228	ASC95023	2113L 1/8 BODY-FERRARI 312 B3	10.95	9.30	172
AFI10008	AFI ELEC. SPEED CONTROL-FUTABA	59.95	47.95	228	ASC95024	2114L 1/8 BODY-LIGIER MASERATI	19.95	16.95	175
AFI10024	AFI 4024 12 VOLT POWER SUPPLY	29.95	25.45	309	ASC95028	2118L 1/8 BODY-ELFIN	19.95	16.95	173
AFI10025	AFI 4025 VOLTAGE BOOSTER	29.95	25.45	309	ASC95029	2119L 1/8 BODY-LOTUS 79 FORM I	10.95	9.30	172
AFI12C00	AFI 4013 1/2A MINI-STARTER	19.95	14.95	313	ASC95031	2121L 1/8 BODY-RALT	19.95	16.95	173
AFI12C01	AFI 4022 DRILL CHUCK	10.95	9.85	313	ASC95100	3151P 1/12 BODY-PNTD FER.312PB	15.00	12.75	175
AFI19110	AFI 4014A 12V 2.5 AMP BATTERY	34.95	27.95	279	ASC95102	3158P 1/12 BODY-PNTD FERR BCXR	15.00	12.75	175
AFI120C00	AFI 4005A AUTC CHARGER	29.95	25.45	279	ASC95109	3150 1/12 BODY-CLEAR MCLAREN	10.00	8.50	175
AFI120010	AFI 3-POSITION SPEED CONTROL	5.95	5.65	228	ASC95110	3151 1/12 BODY-CLEAR FER.312PB	10.00	8.50	175
AFI171003	AFI FOURNIER RF-4 MCTOR/GLIDER	54.95	39.95	28	ASC95111	3152 1/12 BODY-CLR PORSCH 30KL	10.00	8.50	175
AFI171005	AFI ELECTRA-FLY MOTOR/GLIDER	24.95	19.00	28	ASC95112	3153 1/12 BODY-CLEAR PANTERA	10.00	8.50	175
AFI171008	AFI P-68 VICTOR TWIN	54.95	39.95	28	ASC95114	3154 1/12 BODY-CLEAR TRANS AM	10.00	8.50	175
AFI171015	AFI ASW-15 RC SAILPLANE	69.95	52.45	126	ASC95117	3157 1/12 BODY-CLR INDY COYOTE	10.00	8.50	175
AFI171017	AFI ASW-17 RC SAILPLANE								



STOCK NO	DESCRIPTION	RETAIL PRICE	TOWER PRICE	PAGE #	STOCK NO	DESCRIPTION	RETAIL PRICE	TOWER PRICE	PAGE #
ASC96310	3310 FIBERGLASS CHASSIS PLATE	7.00	6.30	176	BCL93005	BL-3005 INDCOR FR. TIRES SILCN	11.95	10.45	180
ASC96315	3315 BUMPER	2.00	1.90	176	BCL93125	BL-3125 REAR ROAD HUGGER TIRES	9.95	8.95	180
ASC96324	3324 ALUM. FLAT HEAD SCREWS 16	2.00	1.90	176	BCL93126	BL-3126 REAR GRABBER TIRES	9.95	8.95	180
ASC96400	3400 REAR END KIT	9.00	8.10	176	BCL93171	BL-3171 INDCOR RE. TIRES-SOFT	9.95	8.95	180
ASC96415	3415-12 TCOTH PINION GEAR	2.50	2.35	176	BCL93172	BL-3172 INDCOR RE. TIRES-SILCN	11.95	10.45	180
ASC96416	3415-13 TCOTH PINION GEAR	2.50	2.35	176	BCL93202	BL-3202 REAR WIDE RACE SLICKS	11.95	10.45	180
ASC96417	3415-14 TCOTH PINION GEAR	2.50	2.35	176	BCL93303	BL-3030 ALUMINUM FRONT RIMS	11.95	10.45	180
ASC96418	3416-44 TCOTH SPUR GR W/SCREWS	1.00	.95	176	BCL93330	BL-3300 ALUMINUM REAR RIMS	13.95	12.20	180
ASC96419	3416-46 TCOTH SPUR GR W/SCREWS	1.00	.95	176	BCL94000	BL-4000 4.8V OS MOTOR	11.00	9.60	180
ASC96420	3416-48 TCOTH SPUR GR W/SCREWS	1.00	.95	176	BCL94010	TEAM CHECKPOINT STAGE 1 MOTOR	14.95	12.95	180
ASC96430	3430 ASSOCIATED 3810 GEAR PULLER	4.00	3.80	176	BCL94020	TEAM CHECKPOINT STAGE 2 MOTOR	18.95	15.95	180
ASC96450	3430 1/12 DIFFERENTIAL	15.00	12.75	176	BCL94030	TEAM CHECKPOINT STAGE 3 MOTOR	29.95	24.70	180
ASC96460	3450 TUBULAR ALLOY STEEL AXLE	4.00	3.60	176	BCL94040	TEAM CHECKPOINT STAGE 4 MOTOR	49.95	38.50	180
ASC96500	3500 OS MOTOR-CLASS A W/CONNTR	11.50	9.75	176	BCL94104	BL-4604 SPEED RESISTOR	6.50	5.85	180
ASC96505	3505 MOTOR CONNECTOR	1.00	.95	176	BCL94105	BL-4605 WIPER ARM	1.49	1.40	180
ASC96510	3510 REWOUND OS MOTOR W/CONN.	15.00	12.75	176	BCL94107	BL-4607 CHARGE CORD	3.95	3.65	180
ASC96511	3511 REEY 05 MODIFIED MOTOR	47.00	34.95	176	BCL94129	BL-4629 REVERSE KIT	10.95	9.60	180
ASC96610	3610 REAR RIMS W/MTG. SCREWS 2	3.50	3.20	176	BCL94226	BL-4226 MOTOR CAPACITOR .01UF	.49	.47	180
ASC96611	3611 REAR TIRE CONUTS 2	3.00	2.75	176	BCL94700	BL-4700 NI-CAD BATTERY PACK	40.00	31.95	180
ASC96612	3612 REAR TIRE CONUTS-TRUED 2	4.00	3.70	176	BCL94701	BL-4701 SUB C NI-CAD CELL	5.50	4.95	180
ASC96613	3613 REAR WHEEL HUB 2	5.00	4.60	176	BCL94775	BL-4775 CHARG. RESISTOR .670HM	1.49	1.40	180
ASC96614	3614 REAR RIM W/TIRES-TRUED 2	9.00	8.30	176	BCL94853	BL-1853 RECEIVER ANTENNA	2.49	2.35	180
ASC96650	3650 FRONT RIMS W/BUSHINGS 2	3.50	3.20	176	BCL95220	BL-5220 REPLACEMENT SPINDLES 2	2.99	2.85	180
ASC96651	3651 FRONT TIRE DONUTS-MED. 2	2.50	2.35	176	BCL95221	BL-5221 C-CLIPS FRONT WHEEL 12	1.00	.95	180
ASC96652	3651-S FRONT TIRE DONUTS-SOFT2	3.00	2.75	176	BCL95222	BL-5222 C-CLIPS REAR WHEEL 12	1.00	.95	180
ASC96654	3654 FRONT RIM W/TIRES-MED. 2	9.00	8.10	176	BCL95224	BL-5224 SMALL PARTS ASSORTMENT	1.00	.95	180
ASC96655	3654-S FRONT RIM W/TIRES-SOFT2	9.00	8.10	176	BCL95252	BL-5252 BRASS AXLE SHIMS .01C	.98	.95	180
ASC96663	3652 FRONT TIRE DONUTS-MED. 2	4.00	3.70	176	BCL95253	BL-5253 NYLON AXLE SHIMS-ASTD	1.00	.95	180
ASC96664	3652-S FRONT TIRE DONUTS-SOFT2	4.00	3.70	176	BCL95400	BL-5400 QUICK CHANGE AXLE W/HW	3.50	3.20	180
ASC96665	3655 FRONT BALL BEARINGS 2	12.00	10.50	176	BCL95434	BL-5434 B-BEARING RE. AXLE KIT	21.95	18.65	180
ASC96711	3711 THROTTLE CONTROL RESISTOR	7.50	6.90	176	BCL95501	BL-5501 12 TCOTH PINION GEAR	2.50	2.40	180
ASC96712	3712 THROTTLE CONTROL WIPER	1.25	1.20	176	BCL95503	BL-5503 14 TCOTH PINION GEAR	2.50	2.40	180
ASC96713	3713 THROTTLE CONTROL MTG BRKT	1.00	.95	176	BCL95505	BL-5505 16 TCOTH PINION GEAR	2.50	2.40	180
ASC96715	3715 RADIO DROPPING CLOES 2	1.00	.95	176	BCL95652	BL-5652 52 TCOTH SPUR GEAR	1.50	1.45	180
ASC96717	3717 NICAD BATTERY PACK 6-CELL	35.00	27.95	176	BCL95654	BL-5654 54 TCOTH SPUR GEAR	1.50	1.45	180
ASC96727	3727 6-CELL NICAD PACK W/CONN.	38.50	29.95	176	BCL95700	BCLINK 5700 DIFF. ASC-LEI	15.00	13.50	180
ASC96730	3730 WIRING HARNESS	6.00	5.40	176	BCL95707	BCLINK 5707 DIFF. BOL-JER	15.00	13.50	180
ASC96740	3740 3-PIN BATT CONNECTOR ISET	1.50	1.45	176	PR14C05	BRIDI ENGINE MOUNT 05	2.19	2.10	320
ASC96755	3755 SERV SAYER W/HARDWARE	2.50	2.40	176	PR14C09	BRIDI ENGINE MOUNT 09	2.39	2.30	320
ASC96820	3820 DECAL SHEET FOR 1/12 CARS	3.00	2.85	176	PR14C15	BRIDI ENGINE MOUNT 15	2.49	2.40	320
ASC97010	880 AIR CLEANER/VECO198P.CARBS	3.95	3.65	176	PR14C19	BRIDI ENGINE MOUNT 19	2.79	2.60	320
ASC97016	SP16 RAC.HEADGEAT SINK-K&B 21	14.00	12.25	176	PR14C40	BRIDI ENGINE MOUNT 40	2.89	2.70	320
ASC97020	SP20 MYLAR DECAL SHEET-1/8 CAR	4.00	3.70	176	PR14C60	BRIDI ENGINE MOUNT 60	3.28	3.10	320
ASC97026	SP26 ELEC.STARTER RUBBER DONUT	2.00	1.90	176	PR14C61	BRIDI ENGINE MOUNT 60L	3.49	3.30	320
ASC97222	2222 1/8 BALL BEARINGS 1/4X5/8	12.50	10.95	173	BR126C01	BEE L-1 LANDING GEAR SMALL 9IN	3.55	3.25	251
BED22002	BED MOLDED GEAR BOXES	4.95	4.70	359	BR126C02	BEE L-2 LANDING GEAR MED. 11IN	3.90	3.60	251
BED22020	BED MECHANICAL RETRACTS-2 GR.	30.95	24.75	359	BR126C03	BEE L-3 LANDING GEAR LGE. 12IN	4.25	3.90	251
BED22030	BED MECHANICAL RETRACTS-3 GR.	49.95	39.95	359	BR126C04	BEE L-4 LANDING GEAR X-LG 14IN	4.65	4.30	251
BED22200	BED PNEUMATIC RETRACTS-2 GEAR	62.50	49.95	359	BR126007	BEE L-7 TAILWHEEL ASSEMBLY	.99	.95	369
BED22300	BED PNEUMATIC RETRACTS-3 GEAR	89.95	71.95	359	BR126010	BEE L-5 LANDING GEAR ASSEMBLY	2.25	2.15	369
BAD62001	BADGER #200-1 AIR-BRUSH KIT	35.00	27.95	348	BR142310	BEE MASKING TAPE 1/16 IN.	1.00	.95	366
BAD62003	BADGER #200-3 DELUXE KIT	45.00	35.95	348	BR142311	BEE KWIKSTRYPE RED 1/16 IN.	2.20	2.10	366
BAD62100	BADGER 11 OZ. CAN OF PROPEL	3.00	2.85	349	BR142312	BEE KWIKSTRYPE ORANGE 1/16 IN.	2.20	2.10	366
BAD62101	BADGER 17 OZ. CAN OF PROPEL	4.00	3.70	349	BR142313	BEE KWIKSTRYPE YELLOW 1/16 IN.	2.20	2.10	366
BAD62150	BADGER #150-1L POSTER AIRBRUSH	65.00	49.95	348	BR142314	BEE KWIKSTRYPE WHITE 1/16 IN.	2.20	2.10	366
BAD62200	BADGER #180-1 COMPRESSOR	85.00	67.95	349	BR142315	BEE KWIKSTRYPE SILVER 1/16 IN.	2.20	2.10	366
BAD62351	BADGER #350-1 AIR-BRUSH KIT	24.00	19.95	348	BR142316	BEE KWIKSTRYPE BLUE 1/16 IN.	2.20	2.10	366
BAD62353	BADGER #350-3 DELUXE KIT	34.00	26.95	348	BR142318	BEE KWIKSTRYPE GOLD 1/16 IN.	2.20	2.10	366
BAD62402	BADGER #400-2 DETAIL GUN	89.95	71.95	348	BR142319	BEE KWIKSTRYPE BLACK 1/16 IN.	2.20	2.10	366
BAD62501	BADGER #250-1 STANDARD KIT	12.00	9.95	348	BR142320	BEE MASKING TAPE 3/32 IN.	1.19	1.10	366
BAD62504	BADGER #250-4 MINI SPRAY KIT	15.00	12.75	348	BR142321	BEE KWIKSTRYPE RED 3/32 IN.	2.95	2.80	366
BAD62800	BADGER #50-200 PROPEL REGULATOR	4.50	4.15	349	BR142322	BEE KWIKSTRYPE ORANGE 3/32 IN.	2.95	2.80	366
BAD62811	BADGER #50-011 10 FT. AIR HOSE	5.00	4.60	349	BR142323	BEE KWIKSTRYPE YELLOW 3/32 IN.	2.95	2.80	366
BAD62820	BADGER #50-2011 BRAIDED HOSE	8.50	7.65	349	BR142324	BEE KWIKSTRYPE WHITE 3/32 IN.	2.95	2.80	366
BAD62823	BADGER #50-023 PIPE THREAD FIT	2.00	1.90	349	BR142325	BEE KWIKSTRYPE SILVER 3/32 IN.	2.95	2.80	366
BAD62829	BADGER #50-029 TIRE ADAPTOR	2.00	1.90	349	BR142326	BEE KWIKSTRYPE BLUE 3/32 IN.	2.95	2.80	366
BAD62852	BADGER #50-052 3/4 OZ. JAR	.60	.55	349	BR142328	BEE KWIKSTRYPE GOLD 3/32 IN.	2.95	2.80	366
BAD62853	BADGER #50-053 2 OZ. JAR	.75	.70	349	BR142329	BEE KWIKSTRYPE BLACK 3/32 IN.	2.95	2.80	366
BAD62854	BADGER #50-2 4 OZ. PAINT JAR	.75	.70	349	BR142330	BEE MASKING TAPE 1/8 IN.	1.39	1.30	366
BAD90000	BADGER HOBBY & CRAFT GUIDE	4.95	4.70	283	BR142331	BEE KWIKSTRYPE RED 1/8 IN.	3.20	2.95	366
BAD90001	BADGER CUSTOM AIRBRUSH GUIDE	9.95	8.95	283	HIT42332	BEE KWIKSTRYPE ORANGE 1/8 IN.	3.20	2.95	366
BAN26180	BANNER AXLE SHAFTS 1/8 IN. 2	1.85	1.65	369	BR142333	BEE KWIKSTRYPE YELLOW 1/8 IN.	3.20	2.95	366
BAN26332	BANNER AXLE SHAFTS 3/32 IN. 2	1.70	1.55	369	BR142334	BEE KWIKSTRYPE WHITE 1/8 IN.	3.20	2.95	366
BAN26332	BANNER AXLE SHAFTS 5/32 IN. 2	2.00	1.80	369	BR142335	BEE KWIKSTRYPE SILVER 1/8 IN.	3.20	2.95	366
BAN26632	BANNER AXLE 5/32 EXTRA-LONG 2	2.50	2.35	369	BR142336	BEE KWIKSTRYPE BLUE 1/8 IN.	3.20	2.95	366
BAN26650	BANNER AXLE 3/16 EXTRA-LONG 2	2.75	2.50	369	BR142338	BEE KWIKSTRYPE GOLD 1/8 IN.	3.20	2.95	366
BEA90220	BEARCAT 120 SCANNER	399.95	329.95	338	BR142339	BEE KWIKSTRYPE BLACK 1/8 IN.	3.20	2.95	366
BCL90002	BCLINK 1012 GROUP 12 CAR	130.00	94.95	177	BR142340	BEE MASKING TAPE 1/4 IN.	1.59	1.50	366
BCL90009	BCLINK 1090 BIGGER OFFROAD CAR	130.00	94.95	177	BR142341	BEE KWIKSTRYPE RED 1/4 IN.	3.95	3.65	366
BCL90091	BCLINK 1091 CHALLENGER CAR	130.00	94.95	177	BR142342	BEE KWIKSTRYPE ORANGE 1/4 IN.	3.95	3.65	366
BCL90092	BCLINK 1092 PERFORMANCE CAR	130.00	94.95	178	BR142343	BEE KWIKSTRYPE YELLOW 1/4 IN.	3.95	3.65	366
BCL90093	1352 ECONC PERFORMANCE CAR KIT	59.95	74.95	178	BR142344	BEE KWIKSTRYPE WHITE 1/4 IN.	3.95	3.65	366
BCL90112	1412 GROUP 12 CAR W/FUTABA 2F	260.00	204.95	177	BR142345	BEE KWIKSTRYPE SILVER 1/4 IN.	3.95	3.65	366
BCL90190	BCLINK 1490 BIGGER W/FUTABA 2F	270.00	207.95	177	BR142346	BEE KWIKSTRYPE BLUE 1/4 IN.	3.95	3.65	366
BCL90193	1492 PERFORMANCE CAR W/FUT. 2F	270.00	207.95	178	BR142348	BEE KWIKSTRYPE GOLD 1/4 IN.	3.95	3.65	366
BCL91009	BCLINK BL-5009 PERFORMANCE KIT	35.00	27.95	178	BR142349	BEE KWIKSTRYPE BLACK 1/4 IN.	3.95	3.65	366
BCL91010	BCLINK BL-5010 HANDLING KIT	6.95	6.25	178	BR142350	BEE MASKING TAPE 3/8 IN.	1.79	1.70	366
BCL92301	BL-2601 DECALS-NUMBER & CIRCLE	3.60	3.30	180	BR142360	BEE MASKING TAPE 1/2 IN.	1.99	1.90	366
BCL92400	BL-2400 MCOO PINS 12	1.00	.95	180	BR171000	BRIDI SOAR BIRDY GLIDER	22.95	17.95	127
BCL92480	BL-2048 BODY-CLEAR 75 CAMERO	10.95	9.60	179	BR171200	BRIDI BIG BIRDY GLIDER	42.95	31.95	127
BCL92481	BL-2048P BODY-PNTC. 75 CAMERO	15.95	13.95	179	BR172000	BRIDI QUICKEST 200	26.95	20.20	32
BCL92500	BL-2050 BODY-CLR PORSCHE TURBO	10.95	9.60	179	BR172001	BRIDI RCM BASIC TRAINER	44.95	33.50	32
BCL92501	BL-2050P BODY-PNTC. POR. TURBO	15.95	13.95	179	BR172002	BRIDI RCM TRAINER 20	42.95	31.95	32
BCL92540	BL-2054 BODY-CLR. FERRARI 312	10.95	9.60	179	BR172006	BRIDI RCM TRAINER 5	26.95	20.20	32
BCL92541	BL-2054P BODY-PNTC FERRARI 312	15.95	13.95	179	BR172007	BRIDI RCM TRAINER 10	29.95	22.45	32
BCL92560	BL-2056 BODY-CLEAR MONZA	10.95	9.60	179	BR172008	BRIDI SUN FLI 4-20	34.95	25.95	30
BCL92561	BL-2056P BODY-PAINTED MONZA	15.95	13.95	179	BR173007	BRIDI SUPER KAOS 40	62.95	45.95	36
BCL92570	BL-2057 BODY-CLEAR DATSUN 280Z	10.95	9.60	179	BR173007	BRIDI RCM TRAINER 40	59.95	43.95	29
BCL92571	BL-2057P BODY-PNTC DATSUN 280Z	15.95	13.95	179	BR173008	BRIDI GLA BASIC TRAINER	44.95	33.75	33
BCL92580	BL-2058 BODY-CLR FERARI CAN-AM	10.95	9.60	179	BR173009	BRIDI TWEEDY BIRC	46.95	34.95	30
BCL92581	BL-2058P BODY-PNTC FER. CAN-AM	15.95	13.95	179	BR173010	BRIDI DIRTY BIRDY 40 WOOD	66.95	49.95	30
BCL92650	BL-2065 BODY-CLEAR PORSCHE 935	10.95	9.60	179	BR173015	BRIDI QUICKEST 500	46.25	34.95	33
BCL92651	BL-2065P BODY-PNTD PORSCHE 935	15.95	13.95	179	BR173500	BRIDI 15-500	46.95	34.95	33
BCL92701	BL-2701 SEDAN INTERIOR	1.98	1.90	179	BR174002	BRIDI RCM TRAINER 60	73.95	53.95	29
BCL92720	BL-2072 BODY-CLR LAMB COUNTACH	10.95	9.60	179	BR174003	BRIDI KAOS 60	69.95	52.45	30
BCL92721	BL-								



STOCK NO	DESCRIPTION	RETAIL PRICE	TOWER PRICE	PAGE #	STOCK NO	DESCRIPTION	RETAIL PRICE	TOWER PRICE	PAGE #
BR174017	BRID1 T-28 -GLASS	149.95	113.95	34	COV41304	COVERITE SILKSPUN 38X54 ORANGE	8.20	6.75	305
BR174018	BRID1 SPITFIRE -GLASS	134.95	101.20	36	COV41305	COVERITE SILKSPUN 38X54 YELLOW	8.20	6.75	305
BR174019	BRID1 DECEPTION	99.95	75.95	36	COV41351	38X25 FT COVERITE SILKSPUN WHITE	45.51	33.95	305
BR174100	BRID1 COSMIC WIND 1/4 SCL-GLAS	159.75	121.40	35	COV41501	COVERITE PERMAGLOS 38X43 WHITE	10.70	8.95	305
BR174110	BRID1 CORBIN ACE-1/4 SCALE	142.95	108.65	36	COV41502	COVERITE PERMAGLOS 38X43 RED	10.70	8.95	305
BR174120	BRID1 REARWIN SPEEDSTER 1/4 SC	147.95	112.45	35	COV41503	COVERITE PERMAGLOS 38X43 BLUE	10.70	8.95	305
BR174140	BRID1 DALCTEL - .90 SIZE	159.95	121.55	34	COV41504	COVERITE PERMAGLOS 38X43 ORANG	10.70	8.95	305
BR174150	BRID1 CAP 20L - FIBERGLASS	249.95	189.95	35	COV41505	COVERITE PERMAGLOS 38X43 YELLO	10.70	8.95	305
C6D12000	C&D ENTERPRISES GLO DRIVER	59.95	46.45	279	COV41506	COVERITE PERMAGLOS 38X43 D.C.	10.70	8.95	305
CAS10C40	CASS 2+2 SUPER DRIVE-40	99.50	81.95	315	COV41507	COVERITE PERMAGLOS 38X43 ALUM.	11.65	9.90	305
CAS10C60	CASS 2+2 SUPER DRIVE-60	109.50	89.95	315	COV41508	COVERITE PERMAGLOS 38X43 BLACK	10.70	8.95	305
CAS74C10	CASS PULSAR HIPE	95.00	84.95	41	COV41551	43X15 FT COVERITE PERM. WHITE	50.68	37.95	305
CAS74020	CASS SKYBOLT	105.00	89.95	41	COV41552	43X15 FT COVERITE PERM. REC	50.68	37.95	305
CB10601	CB QUADRA PROP ADAPTOR #5601	19.95	16.95	315	COV41553	43X15 FT COVERITE PERM. BLUE	50.68	37.95	305
CB10650	CB QUADRA SPINNER ADAPTOR #5650	5.25	4.75	315	COV41554	43X15 FT COVERITE PERM. ORANGE	50.68	37.95	305
CB14049	C B MOUNT 1/2A-SHORT #5401	3.50	3.20	320	COV41555	43X15 FT COVERITE PERM. YELLOW	50.68	37.95	305
CB14050	C B MOUNT 1/2A-LONG #5402	3.85	3.65	320	COV41556	43X15 FT COVERITE PERM. O.DRAB	50.68	37.95	305
CB14150	CB ASSOCIATES MOUNT .15 #5301	6.30	5.65	320	COV41557	43X15 FT COVERITE PERM. ALUM.	55.17	41.35	305
CB14151	CB ASSOCIATES MOUNT .15R #5302	6.50	5.85	320	COV41604	COVERITE DAYGLOW ORANGE 38X43	11.65	9.90	305
CB14200	CB ASSOCIATES MOUNT .20 #5303	6.20	5.60	320	COV41605	COVERITE DAYGLOW YELLOW 38X43	11.65	9.90	305
CB14300	CB ASSOCIATES MOUNT .30 #5304	6.25	5.65	320	COV45000	COVERITE TRIM-IT KNIFE	1.35	1.25	288
CB14400	CB ASSOCIATES MOUNT .40 #5305	6.60	5.95	320	COV60C00	COVERITE BALSARITE 8 OZ	3.50	2.95	350
CB14401	CB ASSOCIATES MOUNT .40R #5306	7.95	7.15	320	COV60C16	COVERITE BALSARITE-PINT 16 OZ	6.50	5.50	350
CB14600	CB ASSOCIATES MOUNT .60 #5307	7.95	7.15	320	COV61008	COVERITE GLASKOTE 1/2 PT.	3.20	2.95	350
CB14601	CB ASSOCIATES MOUNT .60R #5308	7.95	7.15	320	COV61016	COVERITE GLASKOTE THINNER 1 PT	2.90	2.75	350
CB14602	CB ALUMINUM MOUNT .60P #5312	8.75	7.90	320	COX00C49	CCX 450-1 QRC .049 W/MUFF+TANK	16.95	12.35	229
CB14800	CB ASSOCIATES MOUNT .80 #5309	8.75	7.90	320	COX01020	CCX 160 TEE DEE .02 W/TANK	27.95	20.95	229
CB14814	CB MOUNT .80HD-ROSSI OPS-#5314	9.95	8.95	320	COX01049	CCX 170 TEE DEE .049 ENGINE	27.95	19.95	229
CB14900	CB ALUMINUM MOUNT .90 #5310	11.95	10.45	320	COX01051	CCX 200 TEE DEE .051 ENGINE	27.95	19.95	229
CB14913	CB ASSOCIATES MOUNT-OS90 #5313	11.95	10.45	320	COX01090	CCX 210 TEE DEE .09 ENGINE	29.95	22.45	229
CB14920	CB ALUMINUM MOUNT-QUADRA #5311	22.95	18.95	320	COX02049	CCX 240 MEDALLION .049 ENGINE	19.95	14.95	229
CB18003	C B SPINNER ALUM 1-1/2 #5503	5.45	4.90	364	COX02090	CCX 230 MEDALLION .09 ENGINE	24.95	18.75	229
CB18004	C B SPINNER ALUM 1-3/4 #5504	5.80	5.22	364	COX02150	CCX 220 MEDALLION .15 ENGINE	29.95	22.45	229
CB18005	C B SPINNER ALUM 2 #5505	7.95	7.15	364	COX02505	CCX 240-1 MEDALLION .049 RC	21.95	16.45	229
CB18006	C B SPINNER ALUM 2 1/4 #5506	8.95	8.05	364	COX02509	CCX 230-1 MEDALLION .09 RC	26.95	19.95	229
CB18007	C B SPINNER ALUM 2 1/2 #5507	9.95	8.95	364	COX02515	CCX 220-1 MEDALLION .15 RC	31.95	23.95	229
CB18111	C B SPINNER 1-3/4 RED #5001	3.60	3.30	364	COX03020	COX 100 PEE WEE .020 W/TANK	14.95	11.95	229
CB18112	C B SPINNER 1-3/4 BLACK #5003	3.60	3.30	364	COX03025	COX 100-1 PEE WEE .020 RC W/TK	16.95	12.70	229
CB18113	C B SPINNER 1-3/4 WHITE #5005	3.60	3.30	364	COX03051	CCX 150 BLACK WIDOW .049 W/TNK	15.50	11.65	229
CB18121	C B SPINNER 2 IN. RED #5013	4.00	3.70	364	COX04049	CCX 350 BABE REE .049 W/TANK	11.95	8.95	229
CB18122	C B SPINNER 2 IN. BLACK #5015	4.00	3.70	364	CCX 360 RC BEE .049 W/MUFFLER	21.95	16.45	229	
CB18123	C B SPINNER 2 IN. WHITE #5017	4.00	3.70	364	CCX10C00	CCX 1530 WRENCH FOR .049	1.00	.95	316
CB18131	C B SPINNER 2-1/4 RED #5025	4.60	4.25	364	CCX10C40	CCX 400 SUPER POWER START. KIT	7.95	7.15	316
CB18132	C B SPINNER 2-1/4 BLACK #5027	4.60	4.25	364	CCX10556	CCX 7556 GLOW PLUG CLIP W/WIRE	1.50	1.45	316
CB18133	C B SPINNER 2-1/4 WHITE #5029	4.60	4.25	364	CCX12760	CCX 760 SURE STARTER	19.45	16.55	316
CB18141	C B SPINNER 2-1/2 RED #5037	5.20	4.70	364	CCX13020	CCX 1709 NEEDLE VALVE-170-200	1.30	1.25	316
CB18142	C B SPINNER 2-1/2 BLACK #5039	5.20	4.70	364	CCX13040	CCX 1996 CVERHAUL KIT-.049	2.25	2.15	316
CB18143	C B SPINNER 2-1/2 WHITE #5041	5.20	4.70	364	CCX13050	CCX 375 CYL.PIST.ROD/R.V. .049	4.00	3.80	316
CB18151	C B SPINNER 2-3/4 RED #5049	6.40	5.75	364	CCX13060	CCX 1775 CYL.PIST.ROD/T.C. .049	6.50	5.85	316
CB18152	C B SPINNER 2-3/4 BLACK #5051	6.40	5.75	364	CCX13071	CCX 2045 CYL.PIST.ROD/T.C. .051	6.50	5.85	316
CB18153	C B SPINNER 2-3/4 WHITE #5053	6.40	5.75	364	CCX13080	CCX 1789 N.VALLVENTURI TD49.51	8.50	7.65	316
CB18161	C B SPINNER 3 IN. RED #5061	6.60	5.95	364	CCX14440	CCX 2440 TANK MT-TC & MED .049	5.00	4.60	321
CB18162	C B SPINNER 3 IN. BLACK #5063	6.60	5.95	364	CCX16004	CCX 2630 MUFFLER FOR .049	4.00	3.80	321
CB18163	C B SPINNER 3 IN. WHITE #5065	6.60	5.95	364	CCX16009	CCX 2640 MUFFLER FOR .09	4.00	3.80	323
CB18181	C B SPINNER 3.5 P-40 RED #5085	8.40	7.55	364	CCX16049	CCX 3615 THROTTLE/MUFF C496051	5.00	4.60	323
CB18182	C B SPINNER 3.5 P-40 BLK #5087	8.40	7.55	364	CCX17002	CCX 1032 GLOWHEAD ALL .020	1.75	1.65	316
CB18183	C B SPINNER 3.5 P-40 WHI #5089	8.40	7.55	364	CCX17104	CCX 1702 GLOWHEAD TD 49/51/QRC	2.25	2.15	316
CB18191	C B SPINNER 3.5 P-51 RED #5073	8.40	7.55	364	CCX17105	CCX 325 GLOW HEAD-HI POWER .049	1.90	1.80	316
CB18192	C B SPINNER 3.5 P-51 BLK #5075	8.40	7.55	364	CCX17109	CCX 2102 GLOWHEAD TEE DEE .09	2.95	2.80	316
CB18193	C B SPINNER 3.5 P-51 WHI #5077	8.40	7.55	364	CCX17209	CCX 2302 GLOWHEAD MEDALLION.09	2.95	2.80	316
CB18211	C B ADAP LG #5201 1/4-28 0 N	.75	.70	364	CCX17215	CCX 1102 GLOWHEAD MEDALLION.15	2.95	2.80	316
CB18212	C B ADAP LG #5202 7 MM 1 N	.75	.70	364	CCX17241	CCX 241 COMP. PROP 4-1/2X2	1.00	.95	355
CB18213	C B ADAP LG #5203 6 MM 2 N	.75	.70	364	CCX17242	CCX 242 COMP. PROP 5X3	1.00	.95	355
CB18214	C B ADAP LG #5204 5/16-24 3 N	.75	.70	364	CCX17243	CCX 243 COMP. PROP 5-1/2X4	1.00	.95	355
CB18221	C B ADAP SM #5220 1/4-28 0 N	.70	.65	364	CCX17244	CCX 244 COMP. PROP 6X3	1.00	.95	355
CB18223	C B ADAP SM #5222 6 MM 2 N	.70	.65	364	CCX17245	CCX 245 COMP. PROP 6X4	1.00	.95	355
CB18226	C B ADAP SM #5223 10-32 3 N	.70	.65	364	CCX51070	CCX 510 PT. RACING FUEL	5.50	4.95	330
CB18227	C B ADAP SM #5224 5 MM 4 N	.70	.65	364	CCX51551	CCX 551 PT. SUPER POWER FUEL	4.95	4.55	330
CB24212	CB ASSOC. BUTT HINGE-4 #2212	3.95	3.65	251	CCX51552	CCX 552 CT. SUPER POWER FUEL	7.95	7.15	330
CB24213	CB COMBINATION HINGE-4 #2213	3.95	3.65	251	CCX70601	CCX 900601 TRADEWINDS SAILBOAT	169.95	119.95	141
CB24214	CB ASSOC. STRAP HINGE-4 #2214	3.25	3.00	251	CCX71070	CCX 7000 RTF EAGLE SAILPLANE	99.95	74.95	129
CB24545	CB DOUBLE RUDDER HORN-2 #5545	.95	.90	251	CCX72300	2600 HYDROBLASTER W/ENG-GRADIO	121.95	84.95	141
CB24546	CB ELEVATOR & RUD.HORN-2 #5546	1.05	1.00	251	CCX72400	CCX 9900 RTF CUB W/ENG & RADIO	133.25	86.95	39
CB24547	CB ASSOC. CARLE PULLEY-4 #5547	4.70	4.30	251	CCX72401	CCX 401 RTF CESSNA CENTURION	79.95	59.95	39
CB24548	CB STEERING ARM ASSEMBLY #5548	1.35	1.30	251	CCX72402	CCX 402 RTF SPORTAVIA TRAINER	99.95	74.95	39
CB24549	CB BELL CRANK ASSEMBLY #5549	1.95	1.85	251	CCX72403	CCX 403 RTF PIPER ARROW	78.95	58.95	39
CB24550	CB WING STRUT FITTING-4 #5550	3.95	3.65	251	CCX72404	CCX 404 RTF ELECTRIC SPORTAVIA	149.95	112.95	38
CB26000	C B TAILWHEEL ASSEMBLY #5510	9.10	8.20	369	CCX72405	CCX 405 RTF PIPER ARCHER	74.95	56.25	38
CB26010	C B H.D. TAILWHEEL ASSY #510HD	10.95	9.60	369	CCX72430	CCX 7300 RTF ELECTRIC HAWK	139.95	99.95	40
CB26020	C B 1/4 SCL TAILWHL ASSY #5580	19.95	16.95	369	CCX93554	CCX 900554 BAT PK FOR SPORTAVA	29.95	25.45	38
CB27264	CB 2 AL. WING BCLTS 1 #5264	1.60	1.50	251	CRA20C01	CRAFT-AIR #510 PARACHUTE	5.95	5.50	337
CB27265	CB 2 AL. WING BCLTS 2.5 #5265	1.75	1.65	251	CRA20C03	CRAFT-AIR #511 PARA-POD	9.95	8.75	337
CMF39C00	CUSTOM MODEL PRODUCTS Z-PLIERS	13.95	12.55	288	CRA20C10	CRAFT-AIR #502 STD HI-START	49.95	37.45	337
CMF72C00	CUSTOM MODEL PRODUCTS GENT	54.95	43.95	42	CRA20C20	CRAFT-AIR #503 HVI HI-START	56.95	39.95	337
COV41010	COVERITE 7010 NUMBERS 1 IN RED	1.25	1.20	367	CRA20C30	CRAFT-AIR #505 REGULAR TUBING	29.95	23.95	337
COV41011	COVERITE 7011 NUMBERS 1 IN WHT	1.25	1.20	367	CRA20C40	CRAFT-AIR #506 HEAVY TUBING	36.95	27.95	337
COV41012	COVERITE 7012 NUMBERS 1 IN BLK	1.25	1.20	367	CRA20C70	CRAFT-AIR #508 UPSTART 1/8"	19.95	15.95	337
COV41020	COVERITE 7020 NUMBERS 2 IN RED	2.95	2.80	367	CRA20C80	CRAFT-AIR #509 UPSTART 3/16"	19.95	15.95	337
COV41021	COVERITE 7021 NUMBERS 2 IN WHT	2.95	2.80	367	CRA71C01	C.A.#801 DRIFTER II-COMplete	54.95	41.95	129
COV41022	COVERITE 7022 NUMBERS 2 IN BLK	2.95	2.80	367	CRA71002	CRAFT-AIR #108 CRIFTER II	22.95	16.95	130
COV41030	COVERITE 7030 NUMBERS 3 IN RED	5.50	5.25	367	CRA71C03	CRAFT-AIR #102 WINDRIFTER	49.95	34.95	130
COV41031	COVERITE 7031 NUMBERS 3 IN WHT	5.50	5.25	367	CRA71C04	CRAFT-AIR #103 SD 100	69.95	49.95	131
COV41032	COVERITE 7032 NUMBERS 3 IN BLK	5.50	5.25	367	CRA71C05	CRAFT-AIR #104 SAILAIRE	149.95	99.95	131
COV41110	COVERITE 7110 ALPHABET 1" RED	1.95	1.85	367	CRA71C06	CRAFT-AIR #105 J-BIRC GLIDER	69.95	49.95	130
COV41111	COVERITE 7111 ALPHABET 1" WHT	1.95	1.85	367	CRA71071	CRAFT-AIR #106 VIKING MK I	79.95	55.95	131
COV41112	COVERITE 7112 ALPHABET 1" BLK	1.95	1.85	367	CRA71C72	CRAFT-AIR #107 VIKING MK II	79.95	55.95	131
COV41120	COVERITE 7120 ALPHABET 2" RED	5.95	4.95	367	CRA71C73	CRAFT-AIR GLASS VIKING MK I	119.95	85.95	131
COV41121	COVERITE 7121 ALPHABET 2" WHT	5.50	4.95	367	CRA71C74	CRAFT-AIR GLASS VIKING MK II	119.95	85.95	131
COV41122	COVERITE 7122 ALPHABET 2" BLK	5.50	4.95	367	CRA71109	CRAFT-AIR #109 GOLDEN EAGLE	99.95	69.95	129
COV41201	COVERITE SUPER 38X47 WHITE	8.20	6.75	305	CRA72C02	CRAFT-AIR #201 BUTTERFLY II	56.95	39.95	41
COV41202	COVERITE SUPER 38X47 RED	8.20	6.75	305	CRA72C03	CRAFT-AIR #202 PIECE O'CAKE	24.95	18.70	41
COV41203	COVERITE SUPER 38X47 BLUE	8.20	6.75	305	CRA72C04	C.A.#802 PIECE O'CAKE-COMplete	51.95	39.95	41
COV41204	COVERITE SUPER 38X47 ORANGE	8.20	6.75	305	CRA90C01	CRAFT-AIR #501 VOLTMETER	24.95	18.70	310



STOCK NO	DESCRIPTION	RETAIL PRICE	TOWER PRICE	PAGE #	STOCK NO	DESCRIPTION	RETAIL PRICE	TOWER PRICE	PAGE #
DBP14C05	DAVE BROWN 0405 MOUNT 049/051	1.95	1.85	321	CUR20131	CUBRC 131 SOCKET WRENCHES 2	1.10	1.05	257
DBP14C10	DAVE BROWN 1011 MOUNT 10	2.25	2.15	321	CUR20132	CUBRC 132 BALL WRENCH SET 2	4.25	3.80	257
DBP14C15	DAVE BROWN 1519 MOUNT 15-19	2.35	2.25	321	CUR20133	CUBRC 133 BLIND NUTS 256 4	.35	.33	257
DBP14C20	DAVE BROWN 2025 MOUNT 20-25	2.45	2.35	321	CUR20134	CUBRC 134 BLIND NUTS 348 4	.35	.33	257
DBP14C30	DAVE BROWN 3035 MOUNT 30-35	2.65	2.50	321	CUR20135	CUBRC 135 BLIND NUTS 440 4	.35	.33	257
DBP14C40	DAVE BROWN 4045 MOUNT 40-45	2.75	2.60	321	CUR20136	CUBRC 136 BLIND NUTS 632 4	.40	.37	257
DBP14C60	DAVE BROWN 5060 MOUNT 50-60	3.25	3.10	321	CUR20137	CUBRC 137 DURA COLLARS 1/16 4	.80	.75	254
DBP14C70	DAVE BROWN 6070 MOUNT 60-70	3.25	3.10	321	CUR20138	CUBRC 138 DURA COLLARS 3/32 4	.80	.75	254
DBP31101	DAVE BROWN SORGHUM 7 OZ.	3.25	2.95	273	CUR20139	CUBRC 139 DURA COLLARS 1/8 4	.80	.75	254
DBP32010	DAVE BROWN 30 MIN. EPOXY 10 OZ	6.95	5.45	273	CUR20140	CUBRC 140 DURA COLLARS 5/32 4	.80	.75	254
DBP39201	DAVE BROWN FLEX-ALL	2.95	2.80	354	CUR20141	CUBRC 141 DURA COLLARS 3/16 4	.80	.75	254
DBP43C01	DAVE BROWN SKYLOFT 3 SQ. YD.	3.25	2.95	304	CUR20142	CUBRC 142 1/4-20X2 WING BOLT 4	1.00	.95	254
DBP54401	DAVE BROWN SIX-SHOOTER - GLOW	10.95	8.95	330	CUR20146	CUBRC 146 MUFFLER STRAP	1.50	1.40	324
DBP54402	DAVE BROWN SIX-SHOOTER - GAS	10.95	8.95	330	CUR20147	CUBRC 147 KWIK GLOW PLUG CORD	2.25	2.00	257
DBP60100	DAVE BROWN MICRO BALLTONS	1.50	1.45	354	CUR20148	CUBRC 148 1/2 A KWIK KLIP	.75	.70	257
DEA90020	DEAN'S 2 PIN CONNECTOR SET	1.35	1.30	310	CUR20149	CUBRC 149 1/2 A KLIP W/CORD	1.25	1.20	257
DEA90030	DEAN'S 3 PIN CONNECTOR SET	1.40	1.30	310	CUR20150	CUBRC 150 KWIK KLIP	.85	.80	257
DEA90040	DEAN'S 4 PIN CONNECTOR SET	1.50	1.45	310	CUR20151	CUBRC 151 KWIK KLIP W/CORD	1.40	1.30	257
DEV32206	DEVCON R-206 LARGE 2.5 OZ.	3.49	3.20	273	CUR20152	CUBRC 152 NOSE GEAR, BENT	2.95	2.65	254
DEV32208	DEVCON R-208 DEV-TUBE 1 OZ.	2.39	2.25	273	CUR20153	CUBRC 153 NOSE GEAR, STRAIGHT	2.95	2.65	254
DEV32209	DEVCON M-209 9 OZ. 5 MINUTE	7.95	5.95	273	CUR20154	CUBRC 154 NOSE GEAR WIRE 5/32	.75	.70	254
DEV32233	DEVCON M-33 9 OZ. 30 MINUTE	7.95	5.95	273	CUR20155	CUBRC 155 STEERING ARM ASSEMBLY	1.25	1.20	254
DEV32250	DEVCON R-250 SILICON RUBR 3 OZ	3.75	3.45	273	CUR20156	CUBRC 156 NOSE GEAR BLOCKS 2	1.25	1.20	254
CCD71C03	CCOGSON DESIGN MAESTRO MK III	149.95	126.95	128	CUR20157	CUBRC 157 FRICTION BRAKE- NOSE	2.95	2.65	254
CCD71C04	CCOGSON DESIGN F-JACKER II	119.95	107.95	128	CUR20158	CUBRC 158 LANDING GR STRAPS 4	.40	.37	254
CCD71C05	CCOGSON DESIGN MAESTRO MEGAN	169.95	143.95	128	CUR20159	CUBRC 159 NYLON WING BOLT SET	1.25	1.20	254
CCD71C06	CCOGSON DESIGN CAMANO	149.95	134.95	128	CUR20160	CUBRC 160 PROP BALANCER	2.95	2.65	355
DRE34210	DREMEL #210 CRILL PRESS	27.95	22.35	295	CUR20161	CUBRC 161 R/C TANK FILTER	1.15	1.10	331
DRE34217	DREMEL #217 FCOT SPEED CONTROL	29.95	23.95	295	CUR20162	CUBRC 162 FINAL FILTER	.75	1.65	331
DRE34219	DREMEL #219 SPEED CONTROL	27.95	22.35	295	CUR20163	CUBRC 163 FOAM TAPE - 3 FT.	.75	.70	254
DRE34223	DREMEL #2217 MOTO-TOOL HOLDER	18.95	15.95	295	CUR20164	CUBRC 164 NYLON WING BOLTS 2	.75	.70	254
DRE34229	DREMEL #229 ROUTER ATTACHMENT	12.95	10.95	295	CUR20165	CUBRC 165 FLEX CABLE 20 IN.	1.49	1.35	255
DRE34232	DREMEL #232 MCTC FLEX	84.95	59.95	289	CUR20166	CUBRC 166 STEERING ARM LONG	.75	.70	254
DRE34245	DREMEL #245 MCTC TOOL	41.95	31.45	294	CUR20167	CUBRC 167 90C. BELLCRANK ASY-2	.75	.70	255
DRE34261	DREMEL #261 MCTC TOOL KIT	57.95	39.95	294	CUR20168	CUBRC 168 2-56 LOCK NUTS 12	1.10	1.05	257
DRE34270	DREMEL #270 MCTC TOOL	47.95	33.95	294	CUR20169	CUBRC 169 3-48 LOCK NUTS 12	1.10	1.05	257
DRE34271	DREMEL #271 MCTC TOOL KIT	57.95	39.95	294	CUR20170	CUBRC 170 4-40 LOCK NUTS 12	1.10	1.05	257
DRE34280	DREMEL #280 MCTC TOOL	59.95	41.95	293	CUR20171	CUBRC 171 6-32 LOCK NUTS 12	1.10	1.05	257
DRE34281	DREMEL #281 MCTC TOOL KIT	69.95	48.95	293	CUR20172	CUBRC 172 12 IN. THREADED ROD	.15	.14	255
DRE34371	DREMEL #371 MCTC TOOL KIT	69.95	48.95	293	CUR20173	CUBRC -12- 30 IN. THRC. RODS	3.60	3.50	255
DRE34380	DREMEL #380 MCTC TOOL	69.95	48.95	292	CUR20174	CUBRC 174 2-56X1/2 BOLT SET -4	.50	.47	257
DRE34381	DREMEL #381 MCTC TOOL KIT	79.95	51.95	292	CUR20175	CUBRC 175 3-48X3/4 BOLT SET -4	.50	.47	257
DRE34550	DREMEL #550 MCTC-SAW	64.95	46.95	289	CUR20176	CUBRC 176 4-40X1-1/4 BLT SET-4	.55	.52	257
DRE34571	DREMEL #571 MCTC-SHOP	84.95	59.95	290	CUR20177	CUBRC 177 6-32X1-1/4 BLT SET-4	.55	.52	257
DRE34572	DREMEL #572 DELUXE MCTC-SHOP	109.95	73.95	290	CUR20178	CUBRC 178 SKT BOLT &LN 440X1 4	1.10	1.05	257
DRE34580	DREMEL #580 TABLE SAW	109.95	73.95	296	CUR20179	CUBRC 179 SKT BOLT &LN 632X1 4	1.10	1.05	257
DRE34701	DREMEL #701 DELUXE MCTC-LATHE	69.95	48.95	289	CUR20180	CUBRC 180 BOLT-CN BALL LINK	.85	.80	256
DRE34730	DREMEL #730 DISC-BELT SANDER	99.95	66.95	297	CUR20181	CUBRC 181 THREADED BALL LINK	.85	.80	256
DRE34914	DREMEL #2214 C-VISE	26.95	21.95	296	CUR20182	CUBRC 182 RIVET BALL LINK	.85	.80	256
DRE35059	DREMEL #990196 FLEXIBLE SHAFT	15.75	13.40	291	CUR20183	CUBRC 183 DUAL TAKE-OFF LINK	1.00	.95	256
DRE35060	DREMEL #8029 SAW BLADES-FINE	1.40	1.35	291	CUR20184	CUBRC 184 NYLON LINK W/ROD 5	1.39	1.30	255
DRE35061	DREMEL #8030 SAW BLADES-COARSE	1.50	1.45	291	CUR20185	CUBRC 185 KWIK LINK 12 IN. 5	2.25	2.15	255
DRE35115	DREMEL #115 STEEL CUTTER	3.00	2.75	296	CUR20186	CUBRC 186 AIL. BALL LINK ASSLY	2.95	2.75	256
DRE35193	DREMEL #193 STEEL CUTTER	3.00	2.75	296	CUR20187	CUBRC 187 BALL LINK TOOL	.50	.47	256
DRE35194	DREMEL #194 STEEL CUTTER	3.00	2.75	296	CUR20188	CUBRC 188 BALL LINK SOCKET 4	1.00	.95	256
DRE35196	DREMEL #196 STEEL CUTTER	3.00	2.75	296	CUR20189	CUBRC 189 HORN WIRE BALL LINK2	1.75	1.65	256
DRE35211	DREMEL #4211 ARBOR ADAPTOR	1.50	1.45	291	CUR20190	CUBRC 190 1/16 THRD BALL LINK	.85	.80	256
DRE35214	DREMEL #4214 BACKING PAC	1.50	1.45	291	CUR20191	CUBRC 191 KWIK-FILL FUEL PUMP	10.95	7.95	331
DRE35227	DREMEL #4227 SANDING DISC	1.50	1.45	291	CUR20192	CUBRC 192 FUEL CAN FITTINGS	1.75	1.65	331
DRE35228	DREMEL #4228 SANDING DISC	1.50	1.45	291	CUR20203	CUBRC 203 KWIK-SWITCH MOUNT	1.75	1.65	253
DRE35229	DREMEL #4229 SANDING DISC	1.50	1.45	291	CUR20210	CUBRC 210 PROP DRIVE UNIT	100.00	79.95	316
DRE35235	DREMEL #4235 BUFFING WHEEL 3"	1.50	1.45	291	CUR20211	CUBRC 211 KWIK-PUMP SPINNER	2.95	2.80	331
DRE35402	DREMEL #402 MANDREL	1.50	1.45	296	CUR20212	CUBRC 212 LG THRD COUPLER 5	1.20	1.15	255
DRE35408	DREMEL #408 DRUM SANDER BANDS	1.50	1.45	296	CUR20213	CUBRC 213 EXHAUST EXTENS 6"	3.95	3.55	324
DRE35409	DREMEL #409 CUTTING WHEEL	3.25	3.00	296	CUR20214	CUBRC 214 WATERPROOF FITTINGS-3	1.00	.95	258
DRE35411	DREMEL #411 SANDING DISKS	1.75	1.65	296	CUR20215	CUBRC 215 V-TAIL MIXER	4.95	4.45	253
DRE35432	DREMEL #432 CRUM SANDER BANDS	1.50	1.45	296	CUR20216	CUBRC 216 KWIK-HINGE SLOTTOR	1.95	1.85	258
DRE35480	DREMEL #480 CHUCK COLLET 1/8	1.50	1.45	296	CUR20217	CUBRC 217 BAFFLE SET	2.95	2.65	324
DRE35481	DREMEL #481 CHUCK COLLET 3/32	1.50	1.45	296	CUR20224	CUBRC 224 SM. NEOPRENE LINE-2'	.60	.55	331
DRE35482	DREMEL #482 CHUCK COLLET 1/16	1.50	1.45	296	CUR20225	CUBRC 225 MD. NEOPRENE LINE-2'	.80	.75	331
DRE35483	DREMEL #483 CHUCK COLLET 1/32	1.50	1.45	296	CUR20226	CUBRC 226 LG. NEOPRENE LINE-2'	.90	.85	331
DRE35573	DREMEL #573 ACCESSORY PACKAGE	29.95	25.45	291	CUR20227	CUBRC 227 BELT FOR PROP DRIVE	6.00	5.40	316
DRE35580	DREMEL #8004 580 FINE BLADE	5.95	5.65	297	CUR20228	CUBRC 228 MINI KWIK LINKS 2	.39	.37	253
DRE35581	DREMEL #8013 580 VACUUM ATCH-MT	1.50	1.45	297	CUR20230	CUBRC 230 MINI LINK W/ROD 5	1.39	1.35	252
DRE35582	DREMEL #8014 580 SANDUST BAG	5.95	5.65	297	CUR20231	CUBRC 231 1/24 STRIP AIL LINK.	1.49	1.45	252
DRE35640	DREMEL #8040 730 BELT 50 GRIT	3.95	3.75	297	CUR20232	CUBRC 232 SPRING COUPLERS .045	.39	.37	252
DRE35641	DREMEL #8041 730 BELT 80 GRIT	3.95	3.75	297	CUR20233	CUBRC 233 SPRING COUPLERS 1/16	.39	.37	252
DRE35642	DREMEL #8042 730 BELT 120 GRIT	3.95	3.75	297	CUR20234	CUBRC 234 1/24 STEER. NOSE GR.	2.25	2.15	252
DRE35643	DREMEL #8043 730 BELT 180 GRIT	3.95	3.75	297	CUR20235	CUBRC 235 MUFF-L-AIR II 29-8C	8.95	7.95	324
DRE35644	DREMEL #8044 730 BELT 240 GRIT	3.95	3.75	297	CUR20236	CUBRC 236 MUFF-L-AIR II C9-25	6.95	6.25	324
DRE35645	DREMEL #8045 730 BELT 320 GRIT	3.95	3.75	297	CUR20237	CUBRC 237 T-STYLE NYLON HORN 2	.49	.47	255
DRE35650	DREMEL #8050 730 DISC 50 GRIT	3.95	3.75	297	CUR20238	CUBRC 238 1/8 NYLON GR STRAP 4	.49	.47	254
DRE35651	DREMEL #8051 730 DISC 80 GRIT	3.95	3.75	297	CUR20239	CUBRC 239 5/32 NYLON GR STRAP 4	.49	.47	254
DRE35652	DREMEL #8052 730 DISC 120 GRIT	3.95	3.75	297	CUR20240	CUBRC 240 MUFF-L-AIR II KEB 40	8.95	7.95	324
DLB16143	DUBRC 143 MUFF-L-AIR .29-.60	7.95	6.95	324	CUR20241	CUBRC 241 BOLT-CN PRES FITTING	.75	.70	324
DLB16144	DUBRC 144 MUFF-L-AIR .09-.25	5.95	5.45	324	CUR20242	CUBRC 242 1/4 TURN LATCH 2	2.50	2.40	252
DUR20101	DUBRC 101 STRIP AILERON ASMBLY	2.95	2.65	253	CUR20243	CUBRC 243 DURA COLLARS 7/32 4	1.00	.95	254
DUR20102	DUBRC 102 CONTROL ROD ASSEMBLY	1.49	1.40	255	CUR20244	CUBRC 244 DURA COLLARS 1/4 4	1.00	.95	254
DUR20103	DUBRC 103 STRIP AIL HORN CON-2	.79	.75	253	CUR20245	CUBRC 245 EXHAUST PLUGS-KEB 4C	1.00	.95	324
DUR20104	DUBRC 104 STRIP AIL BEARINGS-2	.89	.85	253	CUR20246	CUBRC 246 2 AXLES 1 1/4X1/8	2.00	1.90	258
DUR20105	DUBRC 105 LG CONTROL HORNS L&R	.49	.47	255	CUR20247	CUBRC 247 2 AXLES 1 1/4X5/32	2.00	1.90	258
DUR20106	DUBRC 106 KWIK LINK 4 IN.	.49	.47	253	CUR20248	CUBRC 248 2 AXLES 2X5/32	2.00	1.90	258
DUR20107	DUBRC 107 1/2A CONTROL HORNS	.49	.47	252	CUR20249	CUBRC 249 2 AXLES 2X3/16	2.00	1.90	258
DUR20108	DUBRC 108 KWIK LINK 12 IN.	.49	.47	253	CUR20251	DUBRC 251 4-WAY WRENCH	2.95	2.65	316
DUR20109	DUBRC 109 KWIK LINK CLEVIS 2	.75	.70	253	CUR20252	DUBRC 252 T-PINS 1 IN. 100	1.50	1.45	258
DUR20110	DUBRC 110 COUPLING SLEEVES 4	.30	.29	255	CUR20253	DUBRC 253 T-PINS 1 1/4 IN. 100	1.75	1.65	258
DUR20111	DUBRC 111 THREADED COUPLERS 2	.40	.37	255	CUR20254	DUBRC 254 T-PINS 1 1/2 IN. 100	2.00	1.90	258
DUR20112	DUBRC 112 SCLER LINKS 2	.69	.65	253	CUR20255	DUBRC 255 SUPER SMOKER	7.95	7.15	340
DUR20113	DUBRC 113 MINI PUSHROD ASSEMBLY	1.49	1.40	252	CUR20256	DUBRC 256 F.C. WING BOLT SET	1.50	1.45	254
DUR20114	DUBRC 114 SM SERVO MTG. HDWE-5	1.20	1.15	255	CUR21111	CUBRC WHEEL 1 ONLY 175R 1 3/4	1.45	1.30	370
DUR20115	DUBRC 115 SM RUBBER GROMETS-20	.80	.75	255	CUR21112	CUBRC WHEEL 1 ONLY 200R 2 IN.	1.55	1.40	370
DUR20116	DUBRC 116 LARGE NYLON HINGE-6	1.10	1.05	254	CUR21113	CUBRC WHEEL 1 ONLY 225R 2 1/4	1.70	1.55	370
DUR20117	DUBRC 117 LARGE NYLON HINGE-15	2.49	2.10	254	CUR21114	CUBRC WHEEL 1 ONLY 250R 2 1/2	1.80	1.60	370
DUR20118	DUBRC 118 SMALL NYLON HINGE-6	1.00	.95	254	CUR21115	CUBRC WHEEL 1 ONLY 275R 2 3/4	1.90	1.70	370
DUR20119	DUBRC 119 SMALL NYLON HINGE-15	1.95							



STOCK NO	DESCRIPTION	RETAIL PRICE	TOWER PRICE	PAGE #	STOCK NO	DESCRIPTION	RETAIL PRICE	TOWER PRICE	PAGE #
DUB21144	DUBRO WHEEL 1 ONLY 250S 2 1/2	1.80	1.60	370	DUM27012	#7012 PROP DRIVE DOG FOR 3/16	2.50	2.35	143
DUB21145	DUBRO WHEEL 1 ONLY 275S 2 3/4	1.90	1.70	370	DUM27013	#7013 PROP DRIVE DOG-THC 10-32	1.75	1.65	143
DUB21146	DUBRO WHEEL 1 ONLY 300S 3 IN.	2.05	1.85	370	DUM27016	#7016 NYLON THRUST WASHER 3/16	.60	.55	143
DUB21152	DUBRO WHEEL 1 ONLY 400R 4 IN.	3.98	3.95	370	DUM27017	#7017 LOCKING PROP NUT 10-32	1.00	.95	143
DUB21154	DUBRO WHEEL 1 ONLY 450R 4 1/2	4.98	4.95	370	DUM270110	DUMAS #1105 STAR 30 SAILBOAT	55.00	42.65	150
DUB21156	DUBRO WHEEL 1 ONLY 500R 5 IN.	5.98	5.95	370	DUM270120	DUMAS #1106 EQUATION SAILBOAT	172.50	119.95	150
DUB21158	DUBRO WHEEL 1 ONLY 550R 5 1/2	6.98	6.95	370	DUM270125	DUMAS #1108 BINGO SAILBOAT	297.00	192.95	150
DUB21160	DUBRO WHEEL 1 ONLY 600R 6 IN.	7.98	7.95	370	DUM270130	DUMAS #1109 ETCHILLS SAILBOAT	280.00	181.95	150
DUB21211	DUBRO WHEELS-PAIR 175R 1 3/4	2.40	2.15	370	DUM270132	DUMAS #1113 HUSCON 36 SAILBOAT	195.00	136.50	150
DUB21212	DUBRO WHEELS-PAIR 200R 2 IN.	2.60	2.35	370	DUM270140	DUMAS #1110 LIGHTNING SAILBOAT	25.00	19.95	150
DUB21213	DUBRO WHEELS-PAIR 225R 2 1/4	2.80	2.50	370	DUM270210	DUMAS #1201 US NAVY PT-109	46.00	35.65	149
DUB21214	DUBRO WHEELS-PAIR 250R 2 1/2	3.00	2.70	370	DUM270215	DUMAS #1211 CAUNTLESS	84.00	59.95	149
DUB21215	DUBRO WHEELS-PAIR 275R 2 3/4	3.20	2.90	370	DUM270220	DUMAS #1203 U.S. C.G. LIFEBOAT	70.00	52.50	149
DUB21216	DUBRO WHEELS-PAIR 300R 3 IN.	3.40	3.05	370	DUM270221	DUMAS #1210 40FT C.G. UTILITY	55.00	42.65	149
DUB21217	DUBRO WHEELS-PAIR 325R 3 1/4	3.60	3.25	370	DUM270223	DUMAS #1212 44' LIFEBOAT-GLASS	112.00	83.95	147
DUB21218	DUBRO WHEELS-PAIR 350R 3 1/2	3.80	3.40	370	DUM270224	DUMAS #1214 41FT C.G. UTILITY	70.00	49.95	144
DUB21221	DUBRO WHEELS-PAIR 175T 1 3/4	2.40	2.15	370	DUM270225	DUMAS #1204 TUNA CLIPPER	55.00	42.65	149
DUB21222	DUBRO WHEELS-PAIR 200T 2 IN.	2.60	2.35	370	DUM270230	DUMAS #1205 TROJAN CRUISER	73.00	54.75	149
DUB21223	DUBRO WHEELS-PAIR 225T 2 1/4	2.80	2.50	370	DUM270231	DUMAS #1213 AMER. ENTERPRISE	85.00	61.65	147
DUB21224	DUBRO WHEELS-PAIR 250T 2 1/2	3.00	2.70	370	DUM270235	DUMAS #1206 SHELLEY FOSS 24 IN	50.00	38.75	149
DUB21225	DUBRO WHEELS-PAIR 275T 2 3/4	3.20	2.90	370	DUM270240	DUMAS #1207 SHELLEY FOSS 36 IN	90.00	64.95	149
DUB21226	DUBRO WHEELS-PAIR 300T 3 IN.	3.40	3.05	370	DUM270250	DUMAS #1501 SWAMP BUGGY	37.00	29.60	149
DUB21227	DUBRO WHEELS-PAIR 325T 3 1/4	3.60	3.25	370	DUM270255	DUMAS #1502 LIL SWAMP BUGGY	16.00	13.60	149
DUB21228	DUBRO WHEELS-PAIR 350T 3 1/2	3.80	3.40	370	DUM270260	DUMAS #1505 BIG SWAMP BUGGY	42.00	29.95	146
DUB21243	DUBRO WHEELS-PAIR 225S 2 1/4	2.80	2.50	370	DUM270262	DUMAS #1506 WINCY SWAMP BUGGY	30.00	22.50	144
DUB21244	DUBRO WHEELS-PAIR 250S 2 1/2	3.00	2.70	370	DUM270310	DUMAS #1301 ATLAS VAN LINES	13.00	11.40	148
DUB21245	DUBRO WHEELS-PAIR 275S 2 3/4	3.20	2.90	370	DUM270315	DUMAS #1304 ATLAS VAN LINE U71	65.00	48.75	148
DUB21246	DUBRO WHEELS-PAIR 300S 3 IN.	3.40	3.05	370	DUM270318	DUMAS #1312 AVL U-76 HYCRO	59.00	43.95	146
DUB21252	DUBRO WHEELS-PAIR 400R 4 IN.	7.95	7.25	370	DUM270319	DUMAS #1314 ATLAS VAN LINE U-1	60.00	44.95	145
DUB21254	DUBRO WHEELS-PAIR 450R 4 1/2	9.95	8.95	370	DUM270320	DUMAS #1310 PAY'N PAK	45.00	34.85	148
DUB21256	DUBRO WHEELS-PAIR 500R 5 IN.	11.95	10.75	370	DUM270325	DUMAS #1401 SK-CADDE .35	49.00	37.95	148
DUB21258	DUBRO WHEELS-PAIR 550R 5 1/2	13.95	12.50	370	DUM270326	DUMAS #1316 QUICKIE 40 CUTRIGR	45.00	34.85	147
DUB21260	DUBRO WHEELS-PAIR 600R 6 IN.	15.95	14.25	370	DUM270327	DUMAS #1317 LIL RASCAL	28.00	22.95	147
DUM09060	DUMAS #2004 PITTMAN MOTOR 6V	27.50	21.95	230	DUM270330	DUMAS #1410 V-BOTTOM SK10 BOAT	19.00	15.95	148
DUM09120	DUMAS #2005 PITTMAN MOTOR 12V	27.50	21.95	230	DUM270340	DUMAS #1411 DEEP VEE 10 MAHOG	14.00	10.95	148
DUM10006	DUMAS #2006 MOUNTING PLATE 7"	1.30	1.25	154	DUM270341	DUMAS #1422 DEEP VEE 10-GLASS	25.00	19.95	146
DUM10007	#2007 MOUNTING PLATE 1 3/4"	.90	.85	154	DUM270345	DUMAS #1412 DEEP VEE 20 WOOD	36.00	28.80	148
DUM10008	#2008 COMPL. COUPLING-1/8 BORE	3.50	3.20	154	DUM270350	DUMAS #1413 DEEP VEE 40 WOOD	56.00	39.95	148
DUM10009	#2009 DRIVING PINION ASSEMBLY	4.00	3.70	154	DUM270355	DUMAS #1414 DEEP VEE 60 WOOD	78.00	58.50	148
DUM10010	#2010 GEAR REDUCTION ASSY 1.5-1	4.50	4.15	154	DUM270360	DUMAS #1418 COMP. DV20 GLASS	92.00	66.75	148
DUM10011	#2011 GEAR REDUCTION ASSY 2-1	4.90	4.50	154	DUM270365	DUMAS #1419 COMP. DV40 GLASS	110.00	76.95	148
DUM10012	#2012 GEAR REDUCTION ASSY 3-1	5.00	4.50	154	DUM270370	DUMAS #1420 COMP. DV60 GLASS	115.00	79.95	148
DUM10013	#2013 COUPLING SOCKET ASSY 1/8	1.95	1.85	154	DUM270371	DUMAS #1421 COMP DEEP VEE 21	52.00	39.95	145
DUM10014	#2014 COUPLING SOCKET ASSY 3/16	1.95	1.85	154	DUM270373	DUMAS #1423 DV CABIN CRUISER	95.00	68.95	144
DUM10016	#2016 COMPCOND GEAR SET 6 TO 1	9.00	7.95	154	DUM270400	DUMAS #1311 HOT SHOT TUNNELHOL	37.00	26.95	146
DUM10017	#2017 UNIVERSAL SOCKET-1/8BORE	1.30	1.25	154	DUM270401	DUMAS #1315 DRAG N FLY 20 MKII	47.00	36.45	145
DUM10018	#2018 UNIVERSAL SOCKET-3/16 RR	1.30	1.25	154	DUM270413	DUMAS #1313 HCT SHOT 21 GLASS	80.00	55.95	145
DUM10019	#2019 COUPLING ROD	.70	.65	154	EAS12010	EASTCRAFT 201 AIRCRAFT STARTER	109.95	98.95	313
DUM15022	DUMAS #2022 SPEED CONTROL-6V.	30.00	24.95	230	EAS12030	EASTCRAFT 301 QUACRA STARTER	139.95	125.95	313
DUM15023	DUMAS #2023 SPEED CONTROL-12V.	30.00	24.95	230	EAS12040	401 SUPER HUSTLER STARTER	149.95	134.95	313
DUM20010	DUMAS #2301 HARDWARE-SK1	19.00	23.95	152	EAS12100	EASTCRAFT 901 CHARGER	9.95	8.95	313
DUM20050	DUMAS #2306 HARDWARE-AVL1	10.75	9.40	152	ECC48601	ECCNCKOTE #601 REC	7.75	5.50	307
DUM20070	DUMAS #2309 HARDWARE-DV20	41.00	32.80	152	ECC48602	ECCNCKOTE #602 CRANGE	7.75	5.50	307
DUM20080	DUMAS #2310 HARDWARE-PT109	13.60	12.25	152	ECC48603	ECCNCKOTE #603 YELLOW	7.75	5.50	307
DUM20090	DUMAS #2311 HARDWARE-TR31, S200	59.00	46.95	152	ECC48604	ECCNCKOTE #604 WHITE	7.75	5.50	307
DUM20110	DUMAS #2312 HARDWARE-TU36	65.00	51.95	152	ECC48606	ECCNCKOTE #606 SKY BLUE	7.75	5.50	307
DUM20120	DUMAS #2315 HARDWARE-AVL40	76.00	59.95	152	ECC48607	ECCNCKOTE #607 INSIGNIA BLUE	7.75	5.50	307
DUM20190	DUMAS #2320 HOWE FOR 1412-1414	52.00	41.60	152	ECC48608	ECCNCKOTE #608 BLACK	7.75	5.50	307
DUM20220	DUMAS #2321 HARDWARE-DV40, DV60	53.00	42.40	152	EDS14001	EDSON ADJUSTABLE MOTOR MOUNT	6.95	6.25	321
DUM20230	DUMAS #2322 HARDWARE-PP20	35.00	27.95	152	EDS14056	EDSON TR-56 THRUST RING	1.25	1.20	321
DUM20260	DUMAS #2313 HARDWARE-TU24	47.00	37.60	152	EDS14540	EDSON M-51-5 NUT RETAINER 5-40	2.50	2.40	321
DUM20270	DUMAS #2314 HARDWARE-DV10, SKV10	12.00	10.50	152	EDS14632	EDSON M-51-6 NUT RETAINER 6-32	2.50	2.40	321
DUM20273	DUMAS #2317 HOWE DRAGFLY MKII	76.00	59.95	152	EDS26055	EDSON NG-55 ADJ. NOSE GEAR	3.95	3.75	251
DUM20290	DUMAS #3701 SAIL CONTROL UNIT	62.00	47.95	150	EDS27540	EDSON HD-5 MNTG. SCREWS 5-40X1	1.19	1.15	321
DUM20324	DUMAS #2324 HARDWARE-13156,1412	48.00	38.40	152	EDS27632	EDSON HD-6 MNTG. SCREWS 6-32X1	1.19	1.15	321
DUM20325	DUMAS #2325 60 FLEX OUTDRIVE	58.00	46.40	152	EDS27832	EDSON HD-7 BOLTS 6-32X1 1/4"	1.98	1.90	321
DUM20326	DUMAS #2326 10 FLEXDRIVE 10-32	19.00	15.95	152	EDS9C000	APPLYING HEAT SHRINK PLASTIC	5.95	5.75	283
DUM20327	DUMAS #2327 10 FLEXDRIVE ENY09	19.00	15.95	152	ENY01009	ENYA .09 RC ENGINE	37.98	26.95	231
DUM20328	DUMAS #2328 HARDWARE FOR U-76	56.00	44.80	152	ENY01015	ENYA .15 RC ENGINE	42.98	29.95	231
DUM20329	DUMAS #2329 HOWE FOR 40FT USCG	50.00	39.95	152	ENY01019	ENYA .19 RC ENGINE	46.98	32.95	231
DUM20331	#2331 ELEC. DRIVE/16-20" BOAT	15.00	12.75	152	ENY01029	ENYA .29 RC ENGINE	51.98	34.95	231
DUM20332	DUMAS #2332 HOWE-CAUNTLESSCA.E.	43.00	34.40	149	ENY01035	ENYA .35 RC ENGINE	54.98	36.95	231
DUM20333	DUMAS #2333 HARDWARE-LIL RASCAL	25.00	20.65	154	ENY01040	ENYA .40 RC ENGINE	92.98	55.95	231
DUM20334	#2334 OUTDRIVE FOR 1410-1412	18.00	15.30	154	ENY01119	ENYA .19 BB RC ENGINE	59.98	40.50	231
DUM20335	#2335 HOWE FOR 1203, 1210, 1212	65.00	51.95	154	ENY01129	ENYA .29 BB RC ENGINE	68.98	46.95	231
DUM20336	#2336 ELEC. HOWE FOR 1411, 1422	13.00	11.35	154	ENY01135	ENYA .35 BB RC ENGINE	71.98	48.95	231
DUM20337	DUMAS #2337 HOWE FOR 41FT C.G.	60.00	47.95	144	ENY01145	ENYA .45 BB RC ENGINE	92.98	59.95	231
DUM20338	DUMAS #2338 HOWE-DV CRUISER	30.00	23.95	144	ENY01160	ENYA .60 BB RC ENGINE	120.98	78.95	230
DUM22000	DUMAS #3601 CCOL CLAMP-COX 049	4.50	4.15	151	ENY02009	ENYA MARINE .09 RC ENGINE	44.98	31.50	230
DUM22001	#2501 FLYWHEEL 1/8" FOR .049	2.50	2.40	154	ENY02015	ENYA MARINE .15 RC ENGINE	48.98	33.95	230
DUM22003	#2503 FLYWHEEL 1/4" FOR .19	4.00	3.70	154	ENY02019	ENYA MARINE .19 RC ENGINE	53.98	36.50	230
DUM22004	#2504 FLYWHEEL 1/4" FOR 29-35	6.50	5.85	154	ENY02029	ENYA MARINE .29 RC ENGINE	59.98	40.50	230
DUM22005	#2505 FLYWHL W/1/4 COLLET 35-45	8.00	7.20	154	ENY02035	ENYA MARINE .35 RC ENGINE	62.98	42.50	230
DUM22009	#2509 FLYWHL W/1/4 COLLET 50-65	9.00	7.95	154	ENY02040	ENYA MARINE .40 BB RC ENGINE	99.98	64.95	230
DUM22013	#2513 COLLET 1/4"	2.35	2.25	154	ENY02045	ENYA MARINE .45 BB RC ENGINE	99.98	64.95	230
DUM22064	#2604 SHAFTSTUFF.BOX 1/8X10.5	3.25	3.00	154	ENY02060	ENYA MARINE .60 BB RC GP	135.98	84.95	230
DUM22702	#2702 SHAFT ONLY-3/16X16"	6.50	5.85	154	ENY05119	ENYA .19 RC X SCHNL W/MUFFLER	90.98	58.95	232
DUM22704	#2704 SHAFT ONLY-3/16X24"	7.50	6.75	154	ENY05140	ENYA .40 RC X SCHNL W/MUFFLER	130.98	81.95	232
DUM22705	#2705 SHAFT ONLY-3/16X18"	6.50	5.85	154	ENY05145	ENYA .45 RC X SCHNL W/MUFFLER	139.98	87.50	232
DUM22709	#2709 FLEXCABLESHAFT FOR 2321	6.75	6.10	154	ENY05149	ENYA .49 RC X SCHNL W/MUFFLER	135.98	84.95	232
DUM22710	#2710 FLEXCABLESHAFT FOR 2325	8.00	7.20	154	ENY05162	ENYA .60 RC XF II RINGED SCHNL	159.98	89.95	232
DUM22808	#2808 14" TEFLON TUBE FOR2321	4.00	3.70	154	ENY05164	ENYA .60 RC XF W/PERY PUMP	249.98	149.95	231
DUM22809	#2809 14" TEFLON TUBE FOR2325	5.00	4.60	154	ENY08160	ENYA .60 RC PB GR ENGINE	127.98	79.95	230
DUM22911	#2911 1/4-28 STEEL U-JOINT	6.00	5.40	154	ENY16090	ENYA MUFFLER M-90 FOR 09	5.00	4.75	323
DUM22915	#2915 1/4-28 ENG.COUPLING .150	4.50	4.15	154	ENY16100	ENYA MUFFLER M-100 FOR 15-19	6.50	6.15	323
DUM22923	#2923 1/4-28 ENG.COUPLING .187	4.50	4.15	154	ENY16200	ENYA MUFFLER M-200 FOR 29-45	8.75	8.30	323
DUM23001	#3001 PROP FOR .049 1/8"	.70	.65	154	ENY16300	ENYA MUFFLER M-300 FOR 60	11.00	10.45	323
DUM23002	#3002 PROP FOR .09 1/8"	.80	.75	154	ENY16310	ENYA MUFFLER 300X FOR .60XF	13.50	12.85	323
DUM23003	#3003 PROP FOR .19-.35 1/8"	.90	.85	154	ENY16540	ENYA TUNED PIPE FOR 40X-49X	60.98	39.95	323
DUM23004	#3004 PROP FOR .19-.35 3/16"	.90	.85	154	ENY16560	ENYA TUNED PIPE FOR 60X	64.98	42.95	323
DUM23005	#3005 POWER PROP FOR .35-.45	3.75	3.45	154	EST09020	ESTES 4020 SKYPITE	25.00	19.95	132
DUM23006	#3006 POWER PROP FOR .35-.45	4.00	3.70	154	EST09024	ESTES 4024 SKYMAX</			



STOCK NO	DESCRIPTION	RETAIL PRICE	TOWER PRICE	PAGE #	STOCK NO	DESCRIPTION	RETAIL PRICE	TOWER PRICE	PAGE #
EST72048	ESTES 4048 SKYMASTER TRAINER	75.00	55.95	44	FCX21220	FCX 83200 WHEELS 2 CUB STYLE	3.29	3.00	371
EST72068	ESTES 4068 SKYMASTER 2000	155.00	107.95	44	FCX21222	FCX 83225 WHEELS 2 1/4 CUB STL	3.59	3.30	371
EVE19006	EVEREADY #6 1.5 V BATTERY-DRY	4.40	4.05	279	FCX21225	FCX 83250 WHEELS 2 1/2 CUB STL	3.99	3.67	371
EVE19091	EVEREADY E91 AA PENCIL BATT.	.90	.85	279	FCX21227	FCX 83275 WHEELS 2 3/4 CUB STL	4.49	4.15	371
EVE19276	EVEREADY #276 9 V TX BATT-DRY	4.70	4.45	279	FCX21230	FCX 83300 WHEELS 3 CUB STYLE	4.99	4.60	371
EVE19711	EVEREADY #711 1.5V BATTERY-DRY	4.80	4.40	279	FCX21232	FCX 83325 WHEELS 3 1/4 CUB STL	5.49	4.95	371
EVE19735	EVEREADY #735 1.5V BATTERY-DRY	3.00	2.75	279	FCX21235	FCX 83350 WHEELS 3 1/2 CUB STL	5.99	5.40	371
FLI22000	FLITEGLAS PNEUMATIC RESTRCTR-6	5.95	5.35	359	FCX21237	FCX 83375 WHEELS 3 3/4 CUB STL	7.49	6.75	371
FLI42000	FLITEGLAS LIQUID MASKING FILM	5.95	5.35	366	FCX21240	FCX 83400 WHEELS 4 CUB STYLE	8.99	8.10	371
FLT72100	FLITE LINE SKCCTER II	34.95	27.95	46	FCX21245	FCX 83450 WHEELS 4 1/2 CUB STL	10.99	9.60	371
FLT72200	FLITE LINE EZ FLI	34.95	27.95	46	FCX21250	FCX 83500 WHEELS 5 CUB STYLE	12.99	11.35	371
FLT72100	FLITECRAFT RTF WILGA TRAINER	119.95	86.95	45	FCX21255	FCX 83550 WHEELS 5-1/2 CUB STL	14.99	13.10	371
FLT73100	FLITECRAFT RTF CARINAL SPORT	129.95	94.95	45	FCX21260	FCX 83600 WHEELS 6 CUB STYLE	16.99	14.45	371
FLY72102	FLYLINE 102 BELLANCA SKYROCKET	15.95	13.55	43	FCX21704	FCX #70104 4-WAY WRENCH	7.95	7.15	317
FLY72103	FLYLINE 103 CURTIS ROBIN	15.95	13.55	43	FCX52701	FCX #90701 SMALL FUEL FILTER	1.98	1.85	332
FLY72104	FLYLINE 104 STEARMAN C3B	15.95	13.55	42	FCX52702	FCX #90702 LARGE FUEL FILTER	1.98	1.85	332
FLY72105	FLYLINE 105 GENERAL ARISTOCRAT	15.95	13.55	42	FCX56811	FCX #90811 LUSTROX	.75	.70	317
FLY72106	FLYLINE 106 KINNER SPORTSTER	15.95	13.55	43	FUJ01009	FUJ1 099 RC SCHNEURLE W/MUFF.	31.95	23.95	240
FLY72107	FLYLINE 107 FAIRCHILD #122**	30.95	24.75	43	FUJ01015	FUJ1 .15 RC SCHNEURLE W/MUFF.	34.95	25.95	240
FLY72114	FLYLINE 114 GREAT LAKES TRAINR	34.95	27.95	43	FUJ01019	FUJ1 .19 RC SCHNEURLE W/MUFF.	39.95	29.95	240
FLY72115	FLYLINE 115 TRAVEL ATR 6000	15.95	13.55	42	FUJ01025	FUJ1 .25 RC SCHNEURLE W/MUFF.	44.95	33.75	240
FLY72116	FLYLINE 116 BUCKNER JUNGMEISTER	19.95	16.95	43	FUJ01035	FUJ1 .35 RC SCHNEURLE W/MUFF.	52.95	39.75	240
FCX00035	FCX #13500 .35 U/C ENGINE	31.95	22.35	234	FUJ01109	FUJ1 099 BB RC SCHNEURLE W/MUF	36.95	27.75	240
FCX00136	FCX #13700 .36BB COMBAT U/C	59.95	39.95	234	FUJ01115	FUJ1 .15 BB RC SCHNEURLE W/MUF	44.95	33.75	240
FCX01015	FCX #21600 .15 RC SCHNEURLE	39.95	26.95	234	FUJ01119	FUJ1 .19 BB RC SCHNEURLE W/MUF	47.95	33.95	240
FCX01020	FCX .19 RC W/MK-X CARB #21900	41.95	27.95	234	FUJ01125	FUJ1 .25 BB RC SCHNEURLE W/MUF	52.95	39.75	240
FCX01026	FCX .25 RC W/MK-X CARB #22500	41.95	27.95	234	FUJ01140	FUJ1 .40 BB RC SCHNEURLE W/MUF	79.95	59.95	240
FCX01029	FCX #22900 .29 RC ENGINE	49.95	29.95	234	FLS15C10	GLDBEE GB-5P 1/2A PLUG-SPORT	2.25	2.05	317
FCX01036	FCX #23600 .36 RC ENGINE	49.95	29.95	234	FLS15C20	GLDBEE GB-5R 1/2A PLUG-RACING	2.05	1.85	317
FCX01037	FCX #23899 .36 RX RC W/MUFFLER	59.95	39.95	233	FLS1510C	GLDBEE GP-25 R/C SHORT PLUG	1.90	1.60	317
FCX01041	FCX 40 SNL W/MKX CARB #24000	64.95	42.95	235	FLS15200	GLDBEE GB-2L R/C LONG PLUG	1.90	1.60	317
FCX01046	FCX 45 SNL W/MKX CARB #24500	64.95	42.95	235	FLS15300	GLDBEE GB-4S RACING PLUG-SHORT	2.40	2.15	317
FCX01115	FCX #21698 .15 RC SCHNEURLE 2BB	59.95	39.95	234	FLS15400	GLDBEE GB-4L RACING PLUG-LONG	2.40	2.15	317
FCX01119	FCX 198B SNL W/MKX CARB #22000	74.95	49.95	234	FLS90C10	FUSITE GRFP-C FIREPLUGCHARGER	39.50	29.95	281
FCX01141	FCX 40BB SNL W/MKX CARB #24100	79.95	51.95	235	FLT81121	FUTABA FP-S121 SERVO-J SERIES	49.95	42.50	207
FCX01146	FCX 45BB SNL W/MKX CARB #24600	79.95	51.95	235	FLT81122	FUTABA FP-S121G RETRACT SERVO-J	54.95	45.95	207
FCX01162	FCX #26200 .60 EAGLE 2 SIDE EX	125.00	83.95	233	FLT81140	FUTABA FP-S14 SERVO-I TORQUE	89.95	71.95	208
FCX01163	FCX #26299 .60 EAGLE 2 REAR EX	125.00	83.95	233	FLT81160	FUTABA FP-S16 SERVO - MINI	39.95	32.95	208
FCX01165	FCX .60 RC EAGLE W/MK-X CARB	79.95	53.95	235	FLT81161	FUTABA FP-S16L SERVO - REVERSE	39.95	32.95	208
FCX01526	FCX 1.2 CU IN -200C- TWIN	250.00	189.95	233	FLT81200	FUTABA FP-S20 SERVO-ULTRA MINI	39.95	32.95	208
FCX02560	FCX #26300 .60 EAGLE 2 MARINE	175.00	113.75	233	FLT81201	FUTABA FP-S20L SERVO-ULTRAMINI	39.95	32.95	208
FCX11005	FCX #21950 MK-X CARB FOR 19-25	19.95	16.95	233	FLT81210	FUTABA FP-S21 SERVO-EB,HC,MINI	49.95	40.95	208
FCX11010	24051 MKX-A CARB FOR 40E45	24.95	19.95	233	FLT81220	FUTABA FP-S22 SERVO-STD. H.C.	29.95	24.95	208
FCX11020	26051 MKX-B CARB FOR 60ETWIN	24.95	19.95	233	FLT81230	FUTABA FP-S23 SERVO-STANDARD	29.95	24.95	208
FCX11030	26151 MKX-C CARB-ROBART PUMP	24.95	19.95	233	FLT81231	FUTABA FP-S23L SERVO-REVERSE	29.95	24.95	208
FCX11040	26251 MKX-D CARB-TUNED PIPE 60	24.95	19.95	233	FLT81240	FUTABA FP-S24 SERVO-EB,HI-TORQ	59.95	47.95	208
FCX14201	FCX #50201 ENGINE MOUNT	7.00	6.30	321	FLT81670	FUTABA FP-S7 SERVO WATER-TIGHT	39.95	32.95	208
FCX14203	FCX #50203 ENGINE MOUNT	7.00	6.30	321	FLT81671	FUTABA FP-S7L SERVO - REVERSE	39.95	32.95	208
FCX14401	FCX #50401 ENGINE MOUNT	7.50	6.75	321	FLT81680	FLTABA FP-S8 RETRACT SERVO	44.95	36.95	208
FCX14402	FCX #50402 ENGINE MOUNT	7.50	6.75	321	FLT81710	FLTABA FP-S10 SERVO-SAIL WINCH	89.95	71.95	208
FCX14403	FCX #50403 ENGINE MOUNT	7.50	6.75	321	FLT81711	FUTABA FP-S11 SERVO - LINEAR	39.95	32.95	208
FCX14404	FCX #50404 ENGINE MOUNT	7.50	6.75	321	FLT82623	FUTABA TRAY FST-4V S-7,22 VERT	1.00	.95	209
FCX14601	FCX #50601 ENGINE MOUNT	8.00	7.20	321	FLT82630	FUTABA TRAY FST-16A 4-SXS	3.00	2.85	208
FCX14602	FCX #50602 ENGINE MOUNT	8.00	7.20	321	FLT82631	FUTABA TRAY FST-16T 2X1 1"	2.50	2.45	208
FCX14603	FCX #50603 ENGINE MOUNT	8.00	7.20	321	FLT82632	FUTABA TRAY FST-16H HORIZONTAL	1.00	.95	208
FCX15101	FCX RC LONG PLUG-ONE ONLY	1.49	1.25	317	FLT82633	FUTABA TRAY FST-16V VERTICAL	1.00	.95	208
FCX15112	FCX RC LONG PLUG-CNE DOZEN	17.88	12.95	317	FLT82634	FUTABA TRAY FST-16B SINGLE	1.50	1.45	208
FCX15201	FCX RC SHORT PLUG-ONE ONLY	1.49	1.25	317	FLT82640	FLTABA TRAY FST-17A 2-SXS	1.50	1.45	208
FCX15212	FCX RC SHORT PLUG-CNE DOZEN	17.88	12.95	317	FLT82644	FUTABA TRAY FST-17B SINGLE	1.00	.95	208
FCX16212	FCX #90212 MUFFLER .15 EXP	6.95	6.25	325	FLT82645	FUTABA TRAY FST-17T 2X1 1"	2.50	2.35	208
FCX16222	FCX #90222 MUFFLER .19-.36 EXP	8.95	7.95	325	FLT82650	FUTABA TRAY FST-20H HORIZONTAL	1.00	.95	208
FCX16232	FCX #90232 MUFFLER .60 EXP	10.95	9.60	325	FLT82651	FUTABA TRAY FST-20T 2X1 1"	2.50	2.45	208
FCX16242	FCX #90242 MUFFLER .15 SCHNURL	7.95	7.15	325	FLT82652	FUTABA TRAY FST-20V VERTICAL	1.00	.95	208
FCX16252	FCX #90252 MUFFLER .40G.45 SCH	9.95	8.95	325	FLT83300	FUTABA FPC-3MF M/F CONN W/WIRE	3.50	3.35	209
FCX16262	FCX 90262 MUFFLER-EAGLE II	19.95	16.95	325	FLT83305	FUTABA FSH-4W SERVO HORN WHEEL	.75	.70	209
FCX16303	FCX 90303 TUNED PIPE-EAGLE II	37.50	29.95	325	FLT83306	FUTABA FSH-4X SERVO HORN X	.75	.70	209
FCX16412	FCX #90412 EXT. 1/4-28 X 1/2	3.75	3.45	317	FLT83326	FUTABA FSH-26 ACES PK S7,17,18	2.00	1.90	209
FCX16413	FCX #90413 EXT. 1/4-28 X 3/4	3.75	3.45	317	FLT83328	FUTABA FSH-28 ACCESS PK S16	2.00	1.90	209
FCX16414	FCX #90414 EXT. 5/16-24 X 1/2	4.00	3.70	317	FLT83329	FUTABA FSH-29 ACCESS PK S20	2.00	1.90	209
FCX16415	FCX #90415 EXT. 5/16-24 X 3/4	4.00	3.70	317	FLT83340	FUTABA AB0410 TX ANTENNA 3-6CH	5.95	5.75	209
FCX18011	FCX #60106 SPINNER CONV 1 1/2	10.00	9.00	364	FLT83602	FUTABA AEC-1 AILERON EXTENSION	2.95	2.80	209
FCX18012	FCX #60107 SPINNER CONV 1 3/4	11.00	9.35	364	FLT83605	FUTABA SWH-1 SWITCH HARNESS	5.95	5.75	209
FCX18013	FCX #60108 SPINNER CONV 2	12.00	10.20	364	FLT83606	FUTABA AEC-2 Y HARNESS	3.95	3.75	209
FCX18014	FCX #60109 SPINNER CONV 2 1/4	13.00	11.05	364	FLT83610	FUTABA TRAINER CORC	6.95	6.25	209
FCX18015	FCX #60110 SPINNER CONV 2 1/2	14.00	11.90	364	FLT83616	FUTABA FCS-16 S-16 CASE SET	3.00	2.85	209
FLT80121	FCX #60206 SPINNER S JIM 1 1/2	11.00	9.35	364	FLT83626	FUTABA FGS-17 GR. SET S6, S7,17,18	2.00	1.95	209
FLT80222	FCX #60207 SPINNER S JIM 1 3/4	12.00	10.20	364	FLT83627	FUTABA FGS-17 GEAR SET S7,22	2.00	1.95	209
FLT80223	FCX #60208 SPINNER S JIM 2	13.00	11.05	364	FLT83629	FUTABA FGS-16 GEAR SET S16	2.50	2.45	209
FLT80224	FCX #60209 SPINNER S JIM 2 1/4	14.00	11.90	364	FLT83632	FUTABA FGS-23 GEAR SET S23	2.00	1.90	209
FLT80225	FCX #60210 SPINNER S JIM 2 1/2	15.00	12.75	364	FLT83704	FUTABA FPM4 SPEED CONTROL	24.95	20.95	209
FLT80331	FCX #60306 SPINNER CONCL 1 1/2	10.00	9.00	364	FLT83705	FUTABA FPM5 MINI SPEED CONTRL	59.95	49.95	209
FLT80332	FCX #60307 SPINNER CONCL 1 3/4	11.00	9.35	364	FLT83710	FPMCP10 10AMP PCWER DRIVE	59.95	49.95	209
FLT80333	FCX #60308 SPINNER CONCL 2	12.00	10.20	364	FLT83720	FPMCP20 20AMP PCWER DRIVE	79.95	63.95	209
FLT80334	FCX #60309 SPINNER CONCL 2 1/4	13.00	11.05	364	FLT86600	FUTABA FBPK-2 NICAL CONV.-2F	55.95	44.75	209
FLT80335	FCX #60310 SPINNER CONCL 2 1/2	14.00	11.90	364	FLT86602	FUTABA FBC-2A DUAL CHARGER	12.95	10.95	209
FLT80336	FCX #70201 PROP REAMER 4-STEP	5.95	5.45	356	FLT86604	FUTABA FBC-2L DUAL CHARGER *J*	13.95	11.85	209
FLT80337	FCX #70202 PROP REAMER 6-8	5.95	5.45	356	FLT86610	FUTABA AQ312 RX DRY CELL CASE	4.95	4.70	209
FLT80338	FCX #60403 SHORT ADAPT 1/4X28	1.50	1.40	364	FLT86622	FUTABA NR-4G 4.8V 225MA NI-CAD	15.95	13.55	209
FLT80339	FCX #60404 MEDIUM ADAPT 1/4X28	1.50	1.40	364	FLT86650	NR-4C 4.8V 500MA SQUARE NI-CAD	15.95	13.55	209
FLT80340	FCX #60405 LONG ADAPT 1/4X28	1.50	1.40	364	FLT86651	NR-4EA 4.8V 500MA FLAT NI-CAD	15.95	13.55	209
FLT80341	FCX #60406 MEDIUM ADAP 5/16X24	1.50	1.40	364	FLT86652	FUTABA NT-8C 9.6V TX NI-CAD	29.95	25.45	209
FLT80342	FCX #60407 LONG ADAPT 5/16X24	1.50	1.40	364	FLT86670	FUTABA NR-4M RX NICAL J SERIES	15.95	13.55	209
FLT80343	FCX #60503 SPINNER NUT 10/32	2.00	1.90	364	FLT86680	AP0020 CHARGE CCRG FBC-2/1X	2.80	2.65	209
FLT80344	FCX #60504 SPINNER NUT 1/4	2.25	2.15	364	FLT86682	AP0035 CHARGE CCRG FBC-2/NRAC	2.80	2.65	209
FLT80345	FCX 90332 COLLARS 3/32 IN-3 PR	1.49	1.40	369	FLT86722	FAP-22A 2CH AIRBORN PK 2/16,7	104.95	78.70	209
FLT80346	FCX 90342 COLLARS 1/8 IN-3 PR	1.49	1.40	369	FLT86723	FAP-22B 2CH AIRBORN PK 2/22,23	84.95	63.70	209
FLT80347	FCX 90352 COLLARS 5/32 IN-3 PR	1.49	1.40	369	FLT86732	FAP-32A 3CH AIRBORN PK 2/16,7	134.95	101.20	209
FLT80348	FCX 90362 COLLARS 3/16 IN-3 PR	1.49	1.40	369	FLT86733	FAP-32B 3CH AIRBORN PK W/2 S23	114.95	86.20	209
FLT80349	FCX #90501 PRESSURE FTNG 4-40	1.25	1.20	317	FLT86734	FAP-32C 3CH AIRBORN PK W/2 S20	134.95	101.20	209
FLT80350									



STOCK NO	DESCRIPTION	RETAIL PRICE	TOWER PRICE	PAGE #	STOCK NO	DESCRIPTION	RETAIL PRICE	TOWER PRICE	PAGE #
FUT88341	FUTABA FP-4FN 4 CH/4 S-23/2 ST	289.95	187.95	204	GBG27131	GBG 158 WRS-116 1/16 RETAIN	.49	.47	262
FUT88344	FUTABA FP-4FN 4 CH/4 S-16/2 ST	319.95	207.95	204	GBG27132	GBG 159 WRS-332 3/32 RETAIN	.49	.47	262
FUT88345	FUTABA FP-4FN 4 CH/4 S-23/2 ST	199.95	149.95	206	GBG27133	GBG 160 LGC-180 LG CLAMPS 1/8	.59	.55	261
FUT88352	FUTABA FP-5FN 5 CH/4 S-16/2 ST	359.95	233.95	204	GBG27137	GBG 161 LGC-532 LG CLAMP 5/32	.59	.55	261
FUT88353	FUTABA FP-5FN 5 CH/4 S-23/2 ST	329.95	213.95	204	GBG27146	GBG 308 SMS2-50 2X1/2 SCREWS	.49	.47	262
FUT88361	FUTABA FP-6FN 6 CH/4 S-23/2 ST	339.95	217.95	204	GBG27148	GBG 310 SMS4-50 4X1/2 SCREWS	.45	.43	262
FUT88362	FUTABA FP-6FN 6 CH/4 S-16/2 ST	369.95	236.95	204	GBG27201	GBG 102 SD1 SAFETY DRIVER LG.	1.45	1.40	260
FUT88442	FUTABA FP-4JN	399.95	299.95	207	GBG27202	GBG 103 SC2 SAFETY DRIVER SM.	1.45	1.40	260
FLT88652	FUTABA FP-5JN	449.95	336.95	207	GBG27302	GBG 307 SMS2-38 2X3/8 SCREWS	.45	.43	260
FUT88662	FUTABA FP-6JN	549.95	409.95	207	GBG27304	GBG 309 SMS4-38 4X3/8 SCREWS	.45	.43	260
FUT88682	FUTABA FP-8JN	699.95	519.95	207	GBG27404	GBG 303 BN4 #4-40 BLIND NUTS	.40	.37	260
FLT89621	FUTABA FMC-21 CRYSTALS 26.995	8.95	8.50	209	GBG27406	GBG 216 SN1 SNAP NUTS 4	.40	.37	262
FLT89622	FUTABA FMC-22 CRYSTALS 27.045	8.95	8.50	209	GBG27501	GBG 260 E81 ENGINE BRACKET	.85	.80	321
FLT89623	FUTABA FMC-23 CRYSTALS 27.095	8.95	8.50	209	GBG28401	GBG 312 SH-401 4-40X1/8 SCRW	.49	.47	261
FLT89624	FUTABA FMC-24 CRYSTALS 27.145	8.95	8.50	209	GBG28402	GBG 311 SH-402 4-40X1/4 SCRW	.49	.47	261
FLT89625	FUTABA FMC-25 CRYSTALS 27.195	8.95	8.50	209	GBG28403	GBG 325 SH-403 4-40X3/8 SCRW	.49	.47	261
FLT89671	FUTABA FMC-71 CRYSTALS 72.080	11.95	11.50	209	GBG28404	GBG 313 SH-404 4-40X1/2 SCRW	.49	.47	261
FLT89672	FUTABA FMC-72 CRYSTALS 72.160	11.95	11.50	209	GBG28406	GBG 314 SH-406 4-40X3/4 SCRW	.49	.47	261
FLT89673	FUTABA FMC-73 CRYSTALS 72.240	11.95	11.50	209	GBG28408	GBG 315 SH-408 4-40X1 SCRW	.49	.47	261
FLT89674	FUTABA FMC-74 CRYSTALS 72.320	11.95	11.50	209	GBG28410	GBG 316 SH-410 4-40X1.25 SCRW	.69	.65	261
FLT89675	FUTABA FMC-75 CRYSTALS 72.400	11.95	11.50	209	GBG28412	GBG 317 SH-412 4-40X1.5 SCRW	.69	.65	261
FLT89676	FUTABA FMC-76 CRYSTALS 72.960	11.95	11.50	209	GBG28601	GBG 318 SH-601 6-32X1/8 SCRW	.69	.65	261
FLT89677	FUTABA FMC-77 CRYSTALS 75.640	11.95	11.50	209	GBG28604	GBG 319 SH-604 6-32X1/2 SCRW	.49	.47	261
GAS20010	GMP 1/4 SCALE INSTRUMENTS	1.49	1.40	366	GBG28606	GBG 320 SH-606 6-32X3/4 SCRW	.49	.47	261
GAS20050	GMP AIRCRAFT INSTRUMENTS-ASSTD	.98	.95	366	GBG28608	GBG 321 SH-608 6-32X1 SCRW	.49	.47	261
GAS32000	GMP 10 OZ. 6 MINUTE EPOXY	7.95	5.95	273	GBG28610	GBG 322 SH-610 6-32X1.25 SCRW	.69	.65	261
GAS32016	GMP 16 OZ. 6 MINUTE EPOXY	10.95	7.95	273	GBG28612	GBG 323 SH-612 6-32X1.5 SCRW	.69	.65	261
GBE20028	GEE BEE FLOATS 28 IN.	22.95	18.95	339	GBG29101	GBG 244 AB1 AILERON BELL CRANK	.75	.70	260
GBE20033	GEE BEE FLOATS 33 IN.	24.95	20.55	339	GBG29102	GBG 263 BCH1 1/2A BELL CRANK	.45	.43	260
GME21400	GEE BEE .40-.60 WHEELS PANTS	9.95	8.95	371	GBG29110	GBG 248 SAH-332 3/32 AIL HORN	1.29	1.25	262
GBE73000	GEE BEE DREAMER BIPLANE	62.50	49.95	50	GBG29202	GBG 215 CH2 SMALL CONTRL HORN	.50	.45	260
GBE73010	GEE BEE RC-01 MALLARD SEAPLANE	46.95	37.50	50	GBG29204	GBG 245 AB4 AIL & ELEV HORN	.75	.70	261
GBE73020	GEE BEE RC-02 ISLANDER	49.95	39.95	50	GBG29301	GBG 246 AIL AILERON COUPLER	.85	.80	261
GBE73030	GEE BEE RC-03 SEA HAWK	49.95	39.95	50	GBG31000	GBG 389 BLUE GOC ADHES. 16 OZ	3.49	3.30	274
GBE73040	GEE BEE RC-04 TIGER MOTH BIPE	52.50	41.95	50	GBG32000	GCLDBERG 386 JET REGULAR 1/2OZ	3.50	2.95	274
GBG18011	GBG 115 SPINNER 1 1/2 RED	1.49	1.40	365	GBG32384	GCLDBERG 384 SUPER JET 1/2 OZ	4.50	3.85	274
GBG18012	GBG 114 SPINNER 1 1/2 BLACK	1.49	1.40	365	GBG42211	STRIPE 348 16R RED 1/16 IN.	2.29	2.15	367
GBG18013	GBG 113 SPINNER 1 1/2 WHITE	1.49	1.40	365	GBG42213	STRIPE 347 16Y YELLOW 1/16 IN.	2.29	2.15	367
GBG18021	GBG 120 SPINNER 1 3/4 RED	1.79	1.70	365	GBG42214	STRIPE 349 16W WHITE 1/16 IN.	2.29	2.15	367
GBG18022	GBG 119 SPINNER 1 3/4 BLACK	1.79	1.70	365	GBG42216	STRIPE 352 16BU BK BLU 1/16 IN.	2.29	2.15	367
GBG18023	GBG 118 SPINNER 1 3/4 WHITE	1.79	1.70	365	GBG42218	STRIPE 351 16G GOLD 1/16 IN.	2.29	2.15	367
GBG18031	GBG 125 SPINNER 2 IN. RED	2.10	2.00	365	GBG42219	STRIPE 350 16BK BLACK 1/16 IN.	2.29	2.15	367
GBG18032	GBG 124 SPINNER 2 IN. BLACK	2.10	2.00	365	GBG42221	STRIPE 354 3R RED 3/32 IN.	2.98	2.85	367
GBG18033	GBG 123 SPINNER 2 IN. WHITE	2.10	2.00	365	GBG42223	STRIPE 353 3Y YELLOW 3/32 IN.	2.98	2.85	367
GBG18041	GBG 130 SPINNER 2 1/4 RED	2.40	2.30	365	GBG42224	STRIPE 355 3W WHITE 3/32 IN.	2.98	2.85	367
GBG18042	GBG 129 SPINNER 2 1/4 BLACK	2.40	2.30	365	GBG42226	STRIPE 358 3BU BK BLU 3/32 IN.	2.98	2.85	367
GBG18043	GBG 128 SPINNER 2 1/4 WHITE	2.40	2.30	365	GBG42228	STRIPE 357 3G GOLD 3/32 IN.	2.98	2.85	367
GBG18051	GBG 135 SPINNER 2 1/2 RED	2.75	2.60	365	GBG42229	STRIPE 356 3PK BLACK 3/32 IN.	2.98	2.85	367
GBG18052	GBG 134 SPINNER 2 1/2 BLACK	2.75	2.60	365	GBG42231	STRIPE 360 BR RED 1/8 IN.	2.98	2.85	367
GBG18053	GBG 133 SPINNER 2 1/2 WHITE	2.75	2.60	365	GBG42233	STRIPE 359 8Y YELLOW 1/8 IN.	2.98	2.85	367
GBG20101	GBG 264 N1 NYLON TAPE 3/4 IN	.45	.40	262	GBG42234	STRIPE 361 8W WHITE 1/8 IN.	2.98	2.85	367
GBG20102	GBG 265 N2 NYLON TAPE 2 1/2	.69	.65	262	GBG42236	STRIPE 364 8BU BK BLU 1/8 IN.	2.98	2.85	367
GBG20140	GBG 266 NYLON TAPE 4 IN. N4	.98	.95	262	GBG42238	STRIPE 363 8G GOLD 1/8 IN.	2.98	2.85	367
GBG20141	GBG 267 NYLON TAPE 6 IN. N6	1.50	1.45	262	GBG42239	STRIPE 362 8BK BLACK 1/8 IN.	2.98	2.85	367
GBG20149	GBG 289 PRECISION BALANCER	5.95	5.35	375	GBG42241	STRIPE 366 4R RED 1/4 IN.	3.98	3.65	367
GBG20150	GBG 290 SCUFF GUARD	.98	.95	260	GBG42243	STRIPE 365 4Y YELLOW 1/4 IN.	3.98	3.65	367
GBG20159	GBG 332 WHITE & BROWN 72.080	1.25	1.20	262	GBG42244	STRIPE 367 4W WHITE 1/4 IN.	3.98	3.65	367
GBG20160	GBG 333 WHITE & BLUE 72.160	1.25	1.20	262	GBG42246	STRIPE 370 4BU BK BLU 1/4 IN.	3.98	3.65	367
GBG20161	GBG 334 WHITE & RED 72.240	1.25	1.20	262	GBG42248	STRIPE 369 4G GOLD 1/4 IN.	3.98	3.65	367
GBG20162	GBG 335 WHITE & VIOLET 72.320	1.25	1.20	262	GBG42249	STRIPE 368 4BK BLACK 1/4 IN.	3.98	3.65	367
GBG20163	GBG 336 WHITE & ORANGE 72.400	1.25	1.20	262	GBG71001	GCLDBERG SP1 GENTLE LADY	24.95	19.95	133
GBG20164	GBG 337 WHITE & YELLOW 72.960	1.25	1.20	262	GBG72001	GCLDBERG PRC-1 RANGER 42 ARF	32.95	24.70	47
GBG20165	GBG 338 WHITE & GREEN 75.640	1.25	1.20	262	GBG72015	GCLDBERG G15 FALCON 56 MKII	54.95	38.45	49
GBG20200	GBG 162 WC-116 COLLARS 1/16"	.89	.85	371	GBG72018	GCLDBERG G18 1/2 A JR. FALCON	17.95	14.80	47
GBG20202	GBG 163 WC-332 COLLARS 3/32"	.89	.85	371	GBG72021	GCLDBERG G21 SKYLARK 56 MKII	56.95	39.95	48
GBG20204	GBG 164 WC-180 COLLARS 1/8"	.89	.85	371	GBG72022	GCLDBERG G22 JUNIOR SKYLARK	18.95	15.65	47
GBG20206	GBG 165 WC-532 COLLARS 5/32"	.89	.85	371	GBG72023	GCLDBERG G23 1/2 A JR. SKYLANE	19.95	16.45	47
GBG20208	GBG 166 WC-316 COLLARS 3/16"	.89	.85	371	GBG72025	GCLDBERG G25 P-40	19.95	16.45	47
GBG22001	GBG 139 RG1 RETRACT NOSE GEAR	10.00	8.00	360	GBG72030	GCLDBERG P6E CURTISS HAWK	52.95	39.95	46
GBG22002	GBG 140 RG2 RETRACT TWIN-GEAR	14.95	11.95	360	GBG73027	GCLDBERG G27 SKYLANE 62	74.95	52.95	47
GBG22003	GBG 141 RG3 RETRACT TRI-GEAR	24.95	18.70	360	GBG74016	GCLDBERG G16 SENIOR FALCON	79.95	52.95	47
GBG22005	GBG 144 AA1 ADJUSTABLE AXLE	.98	.95	260	GBG75015	GCLDBERG G15W WING FALCON MKII	21.95	18.65	47
GBG23000	GBG 243 PEG3 PUSHROD EXIT AIL	.69	.65	261	GBG75016	GCLDBERG G16W WING SR. FALCON	32.95	27.95	47
GBG23001	GBG 104 PEG1 PUSHROD EXIT LG.	.75	.70	260	GBG75021	GCLDBERG G21W WING SKYLARK MKII	23.95	20.35	47
GBG23002	GBG 105 PEG2 PUSHROD EXIT SM.	.75	.70	260	GBG75027	GCLDBERG G27W WING SKYLANE 62	32.95	27.95	47
GBG23003	GBG 213 SK1 SNAP-R-KEEPER	.50	.45	260	GBG90000	GBG 91 HT-1 HANDI-TOTE	19.95	14.95	340
GBG23004	GBG 212 PC-1 PUSHROD CONNECTS	.98	.95	262	GBG90001	GBG 90 MT-1 MINI-TOTE	10.95	8.75	340
GBG23011	GBG 106 PEG1H LG. HOODED EXIT	.69	.65	261	GBG90010	G.E. GC1 AA NICAD BATTERY	3.49	3.20	280
GBG23012	GBG 107 PEG2H SM. HOODED EXIT	.69	.65	261	GBG90020	G.E. GC2 C NICAD BATTERY	3.89	3.60	280
GBG24007	GBG 98 RK2-7 KLETT HINGE SM.	1.29	1.25	260	GBG90030	G.E. GC3 D NICAD BATTERY	3.99	3.65	280
GBG24015	GBG 99 RK2-15 KLETT HINGE SM.	2.29	2.20	260	GBG90040	G.E. GC9B 9 VOLT NICAD BATTERY	8.99	8.10	280
GBG24307	GBG 100 RK3-7 KLETT HINGE LG.	1.45	1.40	260	GBG90110	G.E. MA21 AA MODULE W/2 NICADS	8.68	7.80	280
GBG24315	GBG 101 RK3-15 KLETT HINGE LG.	2.75	2.60	260	GBG90120	G.E. MC22 C MODULE W/2 NICADS	9.48	8.55	280
GBG24340	GBG 96 RK4 FLEX PT HNG-SM 18	1.40	1.35	260	GBG90130	G.E. MD23 D MODULE W/2 NICADS	9.69	8.70	280
GBG24350	GBG 97 RK5 FLEX PT HNG-MED 18	1.40	1.35	260	GBG90140	G.E. M919 9V MODULE W/1 NICAD	9.49	8.55	280
GBG24400	GBG 270 HSK-1 HINGE SLOT KIT	1.95	1.85	261	GBG90200	G.E. BC3 MINIATURE CHARGER	3.98	3.65	280
GBG24402	GBG 274 HM-1 HINGE-LINE MARKER	.50	.45	261	GBG90250	G.E. BC2 DOUBLE CHARGER	5.98	4.98	280
GBG24404	GBG 271 SF-1 SLCF FORK BLADE	.50	.45	261	GBG90310	G.E. 5ST AA NICAD W/TABS	3.89	3.60	280
GBG24406	GBG 272 SH-1 SLCF HOOK BLADE	.50	.45	261	GBG90410	G.E. RSAA CHARGER/MODULE/2 AA	12.66	11.25	280
GBG25109	GBG 247 AP1 1/16 AIL PUSHRODS	.89	.85	262	GBG90420	G.E. RSC CHARGER/MODULE/2 C	13.46	11.95	280
GBG25201	GBG 211 LR-1 LINK RODS 6	.75	.70	260	GBG90430	G.E. RSD CHARGER/MODULE/2 C	13.67	12.15	280
GBG25217	GBG 217 TC-116 THRU COUPLER-2	.40	.37	261	GBG90440	G.E. RS9 CHARGER/MODULE/1 9V	13.47	11.95	280
GBG25301	GBG 206 SL1 SNAP-LINK W/ROD	.29	.27	260	GBG20000	GEMINI SNAP-CN WING MOUNTS-2	8.95	7.95	251
GBG25302	GBG 207 SL2 SNAP-LINK	.40	.37	260	GPC99001	GPC RC TABLE TRAINER	11.95	10.75	195
GBG25400	GBG 150 SA-180 1/8 STEER. ARM	.98	.95	262	GR117022	GRISH WOOD PROP 18X6	7.00	6.30	356
GBG25401	GBG 209 PS-1 MINI-SNAP W/ROD	.29	.27	260	GR117024	GRISH WOOD PROP 18X8	7.00	6.30	356
GBG25402	GBG 210 PS2 MINI-SNAP	.40	.37	260	GR117026	GRISH WOOD PROP 18X10	7.00	6.30	356
GBG26101	GBG 153 T81 TAILWHEEL BRACKET	.49	.45	260	GR117042	GRISH WOOD PROP 20X6	8.00	7.20	356
GBG26105	GBG 275 NMB-1 90 DEG. BRACKET	.50	.47	261	GR117044	GRISH WOOD PROP 20X8	8.00	7.20	356
GBG26118	GBG 167 3/32 STRBL NOSEGR SET	2.75	2.60	261	GR117066	GRISH WOOD PROP 20X10	8.00	7.20	356
GBG26119	GBG 146 SN-180 1/8 NOSE GEAR	2.95	2.80	262	GR117062	GRISH WOOD PROP 22X6	10.00	9.00	356
GBG26120	GBG 147 SNA-532 5/32 NOSE SET	3.95	3.65	262	GR117064	GRISH WOOD PROP 22X8	10.00	9.00	356
GB									



STOCK NO	DESCRIPTION	RETAIL PRICE	TOWER PRICE	PAGE #	STOCK NO	DESCRIPTION	RETAIL PRICE	TOWER PRICE	PAGE #
GRI17158	TCRNADO PROP 1 ONLY 8X8	.70	.65	356	HUY70040	HUGHEY BOATS 21 RIGGER	135.00	121.50	155
GRI17164	TCRNADO PROP 1 ONLY 9X4	.85	.80	356	HUY70121	HUGHEY BOATS 40 RIGGER	125.00	112.50	155
GRI17166	TCRNADO PROP 1 ONLY 9X6	.85	.80	356	INT16100	I.P. 100 K&B 40 SHT.BEND ADAPT	24.95	20.60	325
GRI17167	TCRNADO PROP 1 ONLY 9X7	.85	.80	356	INT16101	I.P. 101 K&B 40 L&B BEND ADAPT	24.95	20.60	325
GRI17168	TCRNADO PROP 1 ONLY 9X8	.85	.80	356	INT16102	I.P. 102 K&B 61 SHT.BEND ADAPT	24.95	20.60	325
GRI17174	TCRNADO PROP 1 ONLY 10X4	.85	.80	356	INT16103	I.P. 103 K&B 61 L&B BEND ADAPT	24.95	20.60	325
GRI17176	TCRNADO PROP 1 ONLY 10X6	.85	.80	356	INT16106	I.P. 106 CS40SR SHT.BEND ADAPT	24.95	20.60	325
GRI17184	TCRNADO PROP 1 ONLY 11X4	1.00	.90	356	INT16107	I.P. 107 CS40SR L&B BEND ADAPT	24.95	20.60	325
GRI17186	TCRNADO PROP 1 ONLY 11X6	1.00	.90	356	INT16108	I.P. 108 CS60SR SHT.BEND ADAPT	24.95	20.60	325
GRI17188	TCRNADO PROP 1 ONLY 11X8	1.00	.90	356	INT16109	I.P. 109 CS60SR L&B BEND ADAPT	24.95	20.60	325
GRI17195	TCRNADO PROP 1 ONLY 12X5	1.50	1.35	356	INT16112	I.P. 112 WEB40S SHT.BEND ADAPT	24.95	20.60	325
GRI17196	TCRNADO PROP 1 ONLY 12X6	1.50	1.35	356	INT16116	I.P. 116 WEB61S SHT.BEND ADAPT	24.95	20.60	325
GRI17233	TCRNADO PRCP 3 PLACE 6X3 TRAC	.50	.45	356	INT16117	I.P. 117 WEB61S L&B BEND ADAPT	24.95	20.60	325
GRI17266	TCRNADO PRCP 3 PLACE 9X6 TRAC	1.50	1.40	356	INT16180	I.P. 180 K&B21 90DEG CAR ADAPT	24.95	20.60	325
GRI17274	TCRNADO PRCP 3 PLACE 10X4 TRAC	1.50	1.40	356	INT16190	I.P. 190 K&B21 RACE CAR MUFFLER	28.95	23.90	325
GRI17276	TCRNADO PRCP 3 PLACE 10X6 TRAC	1.50	1.40	356	INT16501	I.P. 501 15 TUNED PIPE	22.95	18.95	325
GRI17333	TCRNADO PRCP 3 PLACE 6X3 PUSH	.50	.45	356	INT16503	I.P. 503 21 TUNED PIPE	23.95	19.75	325
GRI17376	TCRNADO PRCP 3 PLACE 10X6 PUSH	1.50	1.40	356	INT16507	I.P. 507 40 TUNED PIPE	25.95	21.40	325
GRI17403	TCRNADO PRCP 6X3 PUSHER	.50	.45	356	INT16509	I.P. 509 45-49 TUNED PIPE	26.95	22.25	325
GRI17404	TCRNADO PRCP 6X4 PUSHER	.50	.45	356	INT16511	I.P. 511 61-71 TUNED PIPE	28.95	23.90	325
GRI17426	TCRNADO PRCP 8X6 PUSHER	.85	.80	356	INT16513	I.P. 513 71-120 TUNED PIPE	32.95	26.35	325
GRI17446	TCRNADO PRCP 9X6 PUSHER	1.00	.90	356	INT16517	I.P. 517 40 PATTERN TUNED PIPE	23.95	19.75	325
GRI17456	TCRNADO PRCP 10X6 PUSHER	1.00	.90	356	INT16518	I.P. 518 60 PATTERN TUNED PIPE	28.95	23.90	325
HALL26051	HALLCC MED. 7.0 TREAD #B105-1	4.30	3.95	263	INT16540	I.P. 540 21 END CLAMP	6.95	6.25	325
HALL26052	HALLCC MED. 8.7 TREAD #B105-2	4.55	4.20	263	INT16541	I.P. 541 21 CENTER CLAMP	7.95	7.15	325
HALL26053	HALLCC MED. 10.3 TREAD #B105-3	5.45	4.95	263	INT16542	I.P. 542 40 END CLAMP	6.95	6.25	325
HALL26054	HALLCC MED. 12.8 TREAD #B105-4	6.15	5.65	263	INT16543	I.P. 543 40 CENTER CLAMP	7.95	7.15	325
HALL26055	HALLCC MED. 15.0 TREAD #B105-5	7.05	6.35	263	INT16544	I.P. 544 45-49 END CLAMP	6.95	6.25	325
HALL26063	HALLCC HVY. 10.3 TREAD #B106-3	5.75	5.30	263	INT16545	I.P. 545 45-49 CENTER CLAMP	7.95	7.15	325
HALL26064	HALLCC HVY. 12.8 TREAD #B106-4	6.40	5.90	263	INT16546	I.P. 546 61-71 END CLAMP	6.95	6.25	325
HALL26065	HALLCC HVY. 15.0 TREAD #B106-5	8.75	7.85	263	INT16547	I.P. 547 61-71 CENTER CLAMP	7.95	7.15	325
HALL26066	HALLCC HVY. 18.0 TREAD #B106-6	10.80	9.70	263	INT16560	I.P. 560 SM. MOUNTING BRACKET	3.95	3.65	325
HBFO1112	HB #1200 .12 RC W/MUFFLER	42.00	31.95	236	INT16561	I.P. 561 LG. MOUNTING BRACKET	4.95	4.55	325
HBFO1115	HB #1500 .15 RC W/MUFFLER	45.50	33.95	236	INT16570	I.P. 570 21 HEADER/SIDE EXHAUST	8.95	8.05	325
HBFO1120	HB #2000 .20 RC W/MUFFLER	53.00	39.95	236	INT16571	I.P. 571 40 HEADER/SIDE EXHAUST	9.95	8.95	325
HBFO1125	HB #2500 .25 RC W/MUFFLER	59.00	43.95	236	INT16572	I.P. 572 61 HEADER/SIDE EXHAUST	10.95	9.60	325
HBFO1140	HB #4000 .40 RC	73.00	54.95	236	INT16580	I.P. 580 21 HEADER/REAR EXHAUST	3.95	3.65	325
HBFO1150	HB #5000 .50 RC	80.50	59.95	236	INT16581	I.P. 581 40 HEADER/REAR EXHAUST	3.95	3.65	325
HBFO1161	HB #6100 .61 RC	108.00	79.95	236	INT16582	I.P. 582 61 HEADER/REAR EXHAUST	3.95	3.65	325
HBFO1221	HB #2300 .21 RC PCP W/MUFFLER	67.50	49.95	236	INT16590	I.P. 590 SMALL STD. COUPLING	1.98	1.90	325
HBFO1240	HB #4200 .40 RC PCP	89.00	66.95	236	INT16591	I.P. 591 MEDIUM STD. COUPLING	1.98	1.90	325
HBFO1261	HB #6300 .61 RC PCP	125.50	93.95	236	INT16592	I.P. 592 LARGE STD. COUPLING	1.98	1.90	325
HBFO2112	HB #1300 MARINE .12 RC W/MUFF	50.50	37.95	236	INT16596	I.P. 596 SM REINFORCED COUPLING	3.49	3.20	325
HBFO2120	HB #2100 MARINE .20 RC W/MUFF	68.50	50.95	236	INT16597	I.P. 597 MD REINFORCED COUPLING	3.98	3.80	325
HBFO2125	HB #2600 MARINE .25 RC W/MUFF	73.00	54.95	236	INT16598	I.P. 598 LG REINFORCED COUPLING	3.98	3.80	325
HBFO2140	HB #4100 MARINE .40 RC	82.50	61.95	236	INT16601	I.P. 601 SM NYLON HOSE CLAMP15	1.98	1.90	325
HBFO2161	HB #6200 MARINE .61 RC	113.50	84.95	236	INT16602	I.P. 602 LG NYLON HOSE CLAMP10	1.98	1.90	325
HBFO2240	HB #4300 MARINE .40 RC PCP	99.00	73.95	236	JCM21250	JCM WHEEL WELL LINERS 2 1/2 PR	1.49	1.40	371
HBFO2261	HB #6400 MARINE .61 RC PCP	153.00	109.95	236	JCM21275	JCM WHEEL WELL LINERS 2 3/4 PR	1.49	1.40	371
HBFO2421	HB #2200 .21 RC PCP RACE CAR	65.00	48.95	236	JCM21300	JCM WHEEL WELL LINERS 3" PR	1.49	1.40	371
HBFO6023	HB #4023 MUFFLER FITS 40-61	10.70	8.95	236	JCM21325	JCM WHEEL WELL LINERS 3 1/4 PR	1.49	1.40	371
HBFO6224	HB #7024 TUNED PIPE .40-.50	39.95	28.60	237	JCM35100	JCM CLEVIS TOOL	4.95	4.50	263
HBFO6225	HB #7025 TUNED PIPE .61	39.95	31.95	237	JCM35440	JCM 4-40 TAP & DRILL SET	3.25	3.10	298
HBFO6326	HB #7026 PIPE ADAPTOR 1 3/4"	17.75	14.95	237	JCM35632	JCM 6-32 TAP & DRILL SET	3.25	3.10	298
HBFO6327	HB #7027 PIPE ADAPTOR 1 5/8"	21.55	17.75	237	JEM42010	JEMCC J-1 DECALS PT-19	5.95	5.45	367
HBFO6328	HB #7028 PIPE ADAPTOR 2 7/8"	18.35	15.60	237	JEM42020	JEMCC J-2 DECALS P-51	5.95	5.45	367
HBH33030	MCBBY HELPS 3 INCH CLAMPS 2	2.29	2.15	298	JEM42030	JEMCC J-3 DECALS CORSAIR	5.95	5.45	367
HBH33060	MCBBY HELPS 6 INCH CLAMPS 2	2.89	2.75	298	JEM42040	JEMCC J-4 DECALS GERMAN	5.95	5.45	367
HI-F11000	HI-FLIGHT MTRAGE GLIDER	69.95	52.45	134	JEM42050	JEMCC J-5 DECALS JAP WWI ZERO	5.95	5.45	367
HI-F11100	HI-FLIGHT RC-8 SAILPLANE	44.95	34.95	134	JEM72100	JEMCC MUSTANG - FUN SCALE	44.95	35.95	56
HIG134100	HIGLEY'S HEAVY HUB 1/4X28	2.59	2.45	264	JEM72200	JEMCC P-39 CCBRA - FUN SCALE	46.95	37.55	56
HIG304100	HIGLEY'S BISC BENDER 1/8X3/32	1.98	1.90	264	JEM72300	JEMCC AMERICAN EAGLE 50	46.95	38.95	56
HIG90150	HIGLEY'S SMOKE SYSTEM II	9.95	8.95	340	JEM73101	JEMCC FAIRCHILD PT-19	64.95	49.95	55
HIG90200	HARRY HIGLEY'S ENGINE HANDBOOK	9.95	8.95	340	JEM73102	JEMCC P-51 MUSTANG	64.95	49.95	55
HTP171100	HIGH POINT BALANCER	23.95	22.75	257	JEM73103	JEMCC ME-109 BF109G-2	64.95	49.95	55
HCB32001	HCBYPOXY FORM 1 EPOXY 1-1/8OZ	2.00	1.80	275	JEM73104	JEMCC FOCKE WULFE FW-190D-9	64.95	49.95	55
HCB32002	HCBYPOXY FORM 2 EPOXY 1 OZ.	4.75	3.95	275	JEM73105	JEMCC AT-6 NC.AMERICAN TEXAN	64.95	49.95	55
HCB32003	HCBYPOXY FORM 3 EPOXY 8 OZ.	5.75	4.95	275	JEM74105	JEMCC F4U-1A CORSAIR	79.95	59.95	56
HCB32004	HCBYPOXY FORM 4 EPOXY 2 OZ.	2.75	2.50	275	JEM74106	JEMCC F6F HELLCAT	84.95	63.95	56
HCB60800	HCBYPOXY PFC FILLER 1/2 PT.	3.00	2.75	351	JEM74107	JEMCC ZERC	79.95	59.95	54
HCB60802	HCBYPOXY 8 CZ H-02 GLOSS 'B'	3.75	3.45	351	JEM74108	JEMCC P-47	94.95	69.95	54
HCB60805	HCBYPOXY 8 CZ H-05 FLAT 'B'	3.75	3.45	351	JEN74001	JENSEN CAS UGLY STICK	76.50	56.95	54
HCB60806	HCBYPOXY 8 CZ H-06 SPRGLS 'B'	3.75	3.45	351	JEN75001	JENSEN WING KIT DAS UGLY STICK	32.50	28.95	54
HCB60808	HCBYPOXY 8 CZ H-08 CLEAR	3.75	3.45	351	JEN76001	JENSEN FUSE KIT DAS UGLY STICK	35.75	31.95	54
HCB60810	HCBYPOXY 8 CZ H-10 WHITE	3.75	3.45	351	JET17100	JET HANGAR DUCTED FAN .40 SIZE	69.95	57.95	237
HCB60819	HCBYPOXY 8 CZ H-19 UNDERCOAT	3.75	3.45	351	JET17200	JET HANGAR SCRYAW DUCTED FAN	75.00	63.95	237
HCB60824	HCBYPOXY 8 CZ H-24 DARK BLUE	3.75	3.45	351	JET17300	JET HANGAR HCBYPOXY MTRAGE III	139.95	132.95	57
HCB60826	HCBYPOXY 8 CZ H-26 LIGHT BLUE	3.75	3.45	351	JET17310	JET HANGAR F9F-8 COUGAR	139.95	132.95	57
HCB60833	HCBYPOXY 8 CZ H-33 STIN GREEN	3.75	3.45	351	JCZ17153	ZINGALI PROPELLER 9X6	.99	.95	357
HCB60847	HCBYPOXY 8 CZ H-47 BR. YELLOW	3.75	3.45	351	JCZ17163	ZINGALI PROPELLER 10X6	1.19	1.15	357
HCB60849	HCBYPOXY 8 CZ H-49 CUB YELLOW	3.75	3.45	351	JCZ17174	ZINGALI PROPELLER 11X7	1.39	1.30	357
HCB60850	HCBYPOXY 8 CZ H-50 STUFF	1.75	1.65	351	JCZ17175	ZINGALI PROPELLER 11X7.5	1.39	1.30	357
HCB60856	HCBYPOXY 8 CZ H-56 INT ORANGE	3.75	3.45	351	JRPB1101	JR 101 SERVO-STANDARD,BB	39.95	31.95	211
HCB60865	HCBYPOXY 8 CZ H-65 BRIGHT RED	3.75	3.45	351	JRPB1103	JR 103 SERVO-180 C. RETRACT,BB	39.95	31.95	211
HCB60866	HCBYPOXY 8 CZ H-66 DARK RED	3.75	3.45	351	JRPB1203	JR 203 SERVO-H.C. RETRACT,BB	44.95	35.95	211
HCB60870	HCBYPOXY 8 CZ H-70 GRAY	3.75	3.45	351	JRPB1501	JR 501 SERVO-STANDARD	29.95	25.45	211
HCB60879	HCB. II OZ H-79 UNDERCOAT GRAY	4.75	3.45	351	JRPB1601	JR 601 SERVO-ECONOMY	24.95	20.95	211
HCB60881	HCBYPOXY 8 CZ H-81 BLACK	3.75	3.45	351	JRPB1701	JR 701 SERVO-ECONOMY,BB	32.95	27.95	211
HCB60890	HCBYPOXY 8 CZ H-90 FILLER	1.75	1.65	351	JRPB1803	JR 3001 SERVO-MINI,BB	49.95	35.95	211
HCB60893	HCBYPOXY 8 CZ H-93 SILVER	3.75	3.45	351	JRPB1851	JR 1001 SERVO-CORELESS,BB	49.95	35.95	211
HCB60899	HCBYPOXY 8 CZ H-99 METALIZER	3.75	3.45	351	JRPB1951	JR 1002 SERVO-HI SPEED,BB	49.95	35.95	211
HCB61607	HCBYPOXY PINT H-07 THINNER	2.50	2.35	351	JRPB3005	JR RX BATTERY-SQUARE 500MA	16.95	14.40	211
HCB61690	HCBYPOXY PINT H-90 FILLER	3.00	2.75	351	JRPB3010	JR RX BATTERY-FLAT 500MA	16.95	14.40	211
HCB63207	HCBYPOXY QUART H-07 THINNER	3.75	3.45	351	JRPB3015	JR RX BATTERY-600MA	19.95	16.95	211
HCB63280	HCBYPOXY QUART H-80 RESIN	7.50	6.75	351	JRPB3020	JR RX BATTERY-270MA	13.95	12.20	211
HCB69000	HCBYPOXY TAC RAG	.75	.70	351	JRPB8212	JR F4C-2SV 2 1/2 CH/2 SERVO/2 ST	269.95	175.95	211
HCT32000	HCT STUFF ADHESIVE HS-4 2 OZ.	12.00	8.40	275	JRPB8232	JR G2C-2S 2 CH/2 SERVO/2 ST	114.95	79.95	211
HCT32001	HCT STUFF ADHESIVE HS-1 .5 OZ.	3.95	2.75	275	JRPB8412	JR 4C-4S 4 CH/4 SERVO/2 ST	389.95	248.95	211
HCT32002	HCT STUFF T500 TUBING 18 IN.	.50	.45	275	JRPB8422	JR 04C-4S 4 CH/4 SERVO/2 ST	299.95	192.95	211
HCT32050	HCT STUFF T500 TUBING/SUPER T	.50	.45	275	JRPB8512	JR 5C-4SV 5 CH/4 SERVO/2 ST	439.95	275.95	211
HCT32100	HCT STUFF BLUE LINE HS-5 .5 OZ	4.95	3.95	275	JRPB8522	JR 5C-4S 5 CH/4 SERVO/2 ST	419.95	266.95	211
HCT32200	HCT STUFF SUPER T HST-1 .5 OZ	3.95	2.95	275	JRPB8612	JR 6C-4SF 6 CH/4 SERVO/2 ST	499.95	314.95	211
HOU30000	HOUSE OF BALSA TUF-GRIND -2-	2.49	2.35	298	JRPB8622	JR 6C-4S 6 CH/4 SERVO/2 ST	499.95	314.95	211
HCL72003	HCLUSE OF BALSA PIETENPOL	64.95	4						



STOCK NO	DESCRIPTION	RETAIL PRICE	TOWER PRICE	PAGE #	STOCK NO	DESCRIPTION	RETAIL PRICE	TOWER PRICE	PAGE #
K6B01162	K6B #6535 .61 RC PRESS. W/MUFF	125.00	82.95	239	KRA21274	KRAFT 200-074 SCL WHEELS 1 3/4	3.19	2.95	372
K6B02222	K6B #8383 .21 RC OUTBOARD	110.00	71.95	238	KRA21275	KRAFT 200-075 SCL WHEELS 2	3.39	3.10	372
K6B02321	K6B #8384 .21 RC MARINE W/MUFF	81.00	56.70	238	KRA21276	KRAFT 200-076 SCL WHEELS 2 1/4	3.69	3.40	372
K6B02440	K6B #8060 .40 RC SPORT MARINE	82.50	56.95	238	KRA21277	KRAFT 200-077 SCL WHEELS 2 1/2	3.99	3.65	372
K6B05121	K6B #8380 .21 RC SCHNRL W/MUFF	80.00	55.95	238	KRA21278	KRAFT 200-078 SCL WHEELS 2 3/4	4.19	3.85	372
K6B10C72	K6B #8572 C.B. THROTTLE LINK.	9.50	6.95	238	KRA21279	KRAFT 200-079 SCL WHEELS 3	4.49	4.15	372
K6B10C91	K6B #8591 AUTO TRIM FOR O.B.	15.95	12.75	238	KRA21280	KRAFT 200-080 SLM WHEELS 2	3.69	3.40	372
K6B11660	K6B #8660 K&B 40 IRVINE CARB	14.95	12.95	239	KRA21281	KRAFT 200-081 SLM WHEELS 2 1/4	3.99	3.65	372
K6B11680	K6B #8680 OUTBOARD CARBURETOR	13.95	10.80	239	KRA21282	KRAFT 200-082 SLM WHEELS 2 1/2	3.99	3.70	372
K6B11687	K6B #8683 CUTBO ENGINE RC CONV.	16.75	14.25	239	KRA21283	KRAFT 200-083 SLM WHEELS 2 3/4	4.19	3.85	372
K6B14004	MARINE 1004 .19 MOTOR MT-4 IN.	5.50	4.95	155	KRA21289	KRAFT 200-089 SLM WHEELS 1 3/4	3.19	3.00	372
K6B14005	MARINE 1005 .40 MOTOR MT-4 IN.	5.50	4.95	155	KRA22007	KRAFT 700-007 RETRACTS C-SETS	119.95	94.95	360
K6B14006	MARINE 1006 .40 MOTOR MT-5 IN.	6.60	5.95	155	KRA22054	KRAFT 700-054 RETRACTS A-SETS	119.95	94.95	360
K6B14007	MARINE 1007 .60 MOTOR MT-5 IN.	6.60	5.95	155	KRA23100	KRAFT 200-202 4-WAY WRENCH	4.50	3.95	317
K6B14008	MARINE 1008 QUICK CHANGE MOUNT	18.60	15.80	156	KRA23104	KRAFT 200-104 1-1/4 CLAMPS 2	1.79	1.70	299
K6B14009	MARINE 1009 MASTER MOUNT ONLY	8.80	7.95	156	KRA23106	KRAFT 200-106 4 IN CLAMP	1.49	1.40	299
K6B14010	MARINE 1010 INSERT ADAPTOR-.40	6.60	5.95	156	KRA23208	KRAFT 200-208 FUEL FILTER	1.49	1.40	332
K6B14011	MARINE 1011 INSERT ADAPTOR-.60	6.60	5.95	156	KRA23304	KRAFT 200-084 FUEL TANK 4 OZ	3.49	3.20	332
K6B14650	K6B #8650 OUTBOARD ACJ. MOUNT	8.95	7.95	239	KRA23306	KRAFT 200-071 FUEL TANK 8 OZ	3.79	3.50	332
K6B15301	K6B #4520 RC LONG PLUG 1	1.65	1.45	317	KRA23308	KRAFT 200-070 FUEL TANK 8 OZ	3.79	3.50	332
K6B15312	K6B #4520 RC LONG PLUG *COZEN*	19.80	14.95	317	KRA23311	KRAFT 200-026 FUEL TANK 11 OZ	3.95	3.65	332
K6B15351	K6B #4530 RC SHORT PLUG 1	1.65	1.45	317	KRA23313	KRAFT 200-027 FUEL TANK 13 OZ	3.95	3.65	332
K6B15401	K6B #7321 STD. SHORT PLUG -1-	1.10	1.05	317	KRA23314	KRAFT 200-148 SLIM TANK 4 OZ	3.49	3.20	332
K6B15501	K6B #7311 KB-11 STD LONG PLUG-1	1.10	1.05	317	KRA23318	KRAFT 200-147 SLIM TANK 8 OZ	3.79	3.50	332
K6B16156	K6B #5156 TUNED PIPE FOR .45	34.95	27.95	323	KRA23312	KRAFT 200-085 SLIM TANK 12 OZ	3.95	3.65	332
K6B16507	K6B #6507 MUFFLER K&B .19	7.50	6.00	323	KRA23316	KRAFT 200-146 SLIM TANK 16 OZ	3.95	3.65	332
K6B16519	K6B #6552 MUFFLER K&B .61	12.50	10.50	323	KRA27200	KRAFT RTF ELECTRIC CARDINAL	99.95	79.95	58
K6B20030	MARINE 1030 HBR-140 OUTDRIVE	33.00	26.40	156	KRA27200	KRAFT RTF ELECTRIC CHIPMUNK	99.95	79.95	59
K6B20031	MARINE 1031 HBR-160 OUTDRIVE	33.00	26.40	156	KRA80125	KRAFT 200-125 1411 ACCESS PKG	1.98	1.90	216
K6B20032	MARINE 1032 HBR-240 OUTDRIVE	38.50	30.80	156	KRA80126	KRAFT 200-126 1511 ACCESS PKG	1.98	1.90	216
K6B20033	MARINE 1033 HBR-260 OUTDRIVE	38.50	30.80	156	KRA80162	KRAFT 200-162 LONG ARM-1461511	.79	.75	216
K6B20034	MARINE 1034 HBR-140 OUTDRIVE	34.00	27.20	156	KRA80168	KRAFT 200-168 LG WHEEL-1461511	.79	.75	216
K6B20035	MARINE 1035 HBR-160 OUTDRIVE	34.00	27.20	156	KRA81110	KRAFT SERV KPS-11	49.95	38.50	216
K6B20036	MARINE 1036 HBR-240 OUTDRIVE	40.50	32.40	156	KRA81120	KRAFT SERV KPS-12	44.95	34.95	216
K6B20037	MARINE 1037 HBR-260 OUTDRIVE	40.50	32.40	156	KRA81140	KRAFT SERV KPS-1411	44.95	34.95	216
K6B68110	SUPERPOXY 8 CZ 8110 CLEAR	4.50	4.15	350	KRA81142	KRAFT SERV KPS-14 180 DEGREE	44.95	34.95	216
K6B68111	SUPERPOXY 8 OZ 8111 WHITE	4.50	4.15	350	KRA81145	KRAFT SERV KPS-1411A A SETS	39.95	29.95	216
K6B68112	SUPERPOXY 8 CZ 8112 INT ORANGE	4.50	4.15	350	KRA81150	KRAFT SERV KPS-1511	44.95	34.95	216
K6B68113	SUPERPOXY 8 OZ 8113 RED	4.50	4.15	350	KRA81152	KRAFT SERV KPS-15 180 DEGREE	44.95	34.95	216
K6B68114	SUPERPOXY 8 CZ 8114 BLACK	4.50	4.15	350	KRA81155	KRAFT SERV KPS-1511A A SETS	42.95	33.25	216
K6B68115	SUPERPOXY 8 OZ 8115 BLUE	4.50	4.15	350	KRA81156	KRAFT SERV KPS-1511A 180 DEG.	42.95	33.25	216
K6B68116	SUPERPOXY 8 OZ 8116 YELLOW	4.50	4.15	350	KRA81168	KRAFT SERV KPS-16 180 DEGREE	49.95	38.50	216
K6B68117	SUPERPOXY 8 OZ 8117 PRIMER	4.50	4.15	350	KRA81180	KRAFT SERV KPS-18 MINI	59.95	47.95	216
K6B68118	SPXY 8 OZ 8118 SPRAY GLOSS CAT	4.50	4.15	350	KRA81185	KRAFT SERV KPS-18A MINI	59.95	44.95	216
K6B68119	SUPERPOXY 8 OZ 8119 PRIMER CAT	4.50	4.15	350	KRA81200	KRAFT SERV KPS-20	49.95	39.95	216
K6B68120	SUPERPOXY PINT 8120 THINNER	4.50	4.15	350	KRA81201	KRAFT SERV KPS-20H	54.95	45.95	216
K6B68121	SUPERPOXY QUART 8121 THINNER	6.75	6.10	350	KRA81202	KRAFT SERV KPS-20A	49.95	39.95	216
K6B68123	SPXY 8 OZ 8123 SPRAY SATIN CAT	4.50	4.15	350	KRA81203	KRAFT SERV KPS-20HA	54.95	43.95	216
K6B68126	SUPERPOXY 8 OZ 8126 METL GREEN	4.50	4.15	350	KRA81205	KRAFT SERV KPS-20 180 DEG.	49.95	39.95	216
K6B68127	SUPERPOXY 8 OZ 8127 METL BLUE	4.50	4.15	350	KRA81206	KRAFT SERV KPS-20H 180 DEG	54.95	45.95	216
K6B68129	SPXY 8 OZ 8129 BRUSH GLOSS CAT	4.50	4.15	350	KRA82C40	KRAFT 200-040 11 TRAY-SIDE 1	1.69	1.55	216
K6B68131	SPXY 8 OZ 8131 BRUSH SATIN CAT	4.50	4.15	350	KRA82C41	KRAFT 200-041 11 TRAY-2X1 3	3.19	3.00	216
K6B68132	SUPERPOXY 8 CZ 8132 PURPLE	4.50	4.15	350	KRA82C42	KRAFT 200-042 11 TRAY-3 ACROSS	3.19	3.00	216
K6B68134	SUPERPOXY 8 CZ 8134 MET. RED	4.50	4.15	350	KRA82C44	KRAFT 200-044 12 TRAY-SIDE 1	1.69	1.55	216
K6B68136	SUPERPOXY 8 CZ 8136 ALUMINUM	4.50	4.15	350	KRA82C45	KRAFT 200-045 12 TRAY-2X1 3	3.19	3.00	216
K6B68150	SUPERPOXY POLYESTER RESIN 1 QT	8.25	7.45	350	KRA82C46	KRAFT 200-046 12 TRAY-3 ACROSS	3.19	3.00	216
K6B68151	K6B #8151 RESIN CATALYST 1/2 OZ	1.50	1.45	350	KRA82C88	KRAFT 200-088 14 TRAY-3 ACROSS	3.19	3.00	216
K6B68160	K6B #8160 FIB CLOTH LT 3/4 OZ	4.25	3.90	350	KRA82C89	KRAFT 200-089 14 TRAY-2X1 3	3.19	3.00	216
K6B68161	K6B #8161 FIB CLOTH MED 2 OZ	4.25	3.90	350	KRA82C90	KRAFT 200-090 14 TRAY-SIDE 1	1.69	1.55	216
K6B68162	K6B #8162 FIB CLOTH HEV 6 OZ	4.25	3.90	350	KRA82C92	KRAFT 200-092 15 TRAY-3 ACROSS	3.19	3.00	216
K6B68163	K6B MICRO-BALLCONS 2.45 OZ	2.25	2.15	350	KRA82C93	KRAFT 200-093 15 TRAY-2X1 3	3.19	3.00	216
K6B68172	K6B MEASURING/MIXING CUPS - 24	1.50	1.40	350	KRA82C94	KRAFT 200-094 15 TRAY-SIDE 1	1.69	1.55	216
K6B68999	SUPERPOXY COLOR MIXING CHART	.50	.45	350	KRA82101	KRAFT 200-101 14 TRAY-VERT. 1	1.69	1.55	216
K6S34421	K6S 421 TAP SET	10.95	9.60	301	KRA82102	KRAFT 200-102 15 TRAY-VERT. 1	1.69	1.55	216
K6S34422	K6S 422 HEX NUT DRIVER SET	6.95	6.25	301	KRA82120	KRAFT 200-120 TRAY SW ACTUATOR	1.29	1.25	216
K6S34423	K6S 423 OPEN-END WRENCH SET	6.95	6.25	301	KRA83C04	KRAFT 350-004 TRAINER SWITCH	12.95	12.25	216
K6S34426	K6S 426 SCREWDRIVER SET	6.95	6.25	301	KRA83013	KRAFT 200-177 SW HARNESS-2 CH.	7.95	7.25	217
K6S44600	K6S 600 AERO SILK 1 YD. WHITE	6.95	6.25	304	KRA83C14	KRAFT 200-149 SW HARNESS-4&6A	7.95	7.25	216
K6S44604	K6S 604 AERO SILK 1 YD. YELLOW	7.95	7.15	304	KRA83C15	KRAFT 200-154 MINI SW HARNESS	7.95	7.25	216
K6S44605	K6S 605 AERO SILK 1 YD. RED	7.95	7.15	304	KRA83021	KRAFT 200-121 SW HRNSS 75 & UP	7.95	7.25	216
K6S94200	K6S #1200 SOLDERING GUN	15.95	13.95	301	KRA83029	KRAFT 200-029 SW HRNSS 72-74	7.95	7.25	216
KAL90100	KALMBACH R/C GLIDER ROKK	3.50	3.50	284	KRA83030	KRAFT 200-030 TRAINER CCRD	8.50	7.65	216
K6B190116	RCBERT KEITH 16' BLIMPAGONOCOLA	3250.00	3150.00	405	KRA83031	KRAFT 200-198 AIL EXT. 24 INCH	3.75	3.45	217
K6B190216	RCBERT KEITH 16' BLIMP ONLY	1800.00	1795.00	405	KRA83032	KRAFT 200-199 AIL EXT. 36 INCH	3.75	3.45	217
K6B190221	RCBERT KEITH 21' BLIMP ONLY	2430.00	2295.00	405	KRA83033	KRAFT 200-200 AIL EXT. 48 INCH	3.75	3.45	217
K6B190250	RCBERT KEITH STANDARD GONDOLA	1555.00	1550.00	405	KRA83034	KRAFT 200-178 AIL EXT. 12 INCH	3.50	3.25	217
K6B190260	RCBERT KEITH DELUXE GONDOLA	2295.00	2255.00	405	KRA83035	KRAFT 200-150 AIL EXT-A SERIES	3.50	3.25	216
KRA14050	KRAFT 200-059 ENGINE MT KM-C5	2.19	2.00	322	KRA83036	KRAFT 200-036 AIL EXT. 6 INCH	3.50	3.25	216
KRA14090	KRAFT 200-060 ENGINE MT KM-C9	2.39	2.20	322	KRA83037	KRAFT 200-037 C Y-HARNESS	6.50	5.85	216
KRA14150	KRAFT 200-061 ENGINE MT KM-15	2.49	2.30	322	KRA83038	200-196 C Y-HARNESS W/CHOKE	8.95	7.95	217
KRA14155	KRAFT 200-103 ENGINE MT KM-15R	2.79	2.50	322	KRA83039	KRAFT 200-188 A Y-HARNESS	8.95	7.95	217
KRA14190	KRAFT 200-062 ENGINE MT KM-19	2.79	2.50	322	KRA83040	200-201 A Y-HARNESS W/CHOKE	8.95	7.95	216
KRA14191	KRAFT 200-063 ENGINE MT KM-19B	2.79	2.50	322	KRA83046	KRAFT 2A RECEIVER KPR-2A	44.95	40.45	212
KRA14300	KRAFT 200-064 ENGINE MT KM-3C	2.89	2.60	322	KRA83047	KRAFT 3AS RECEIVER KPR-3A	49.95	44.95	213
KRA14400	KRAFT 200-065 ENGINE MT KM-4C	2.98	2.70	322	KRA83048	KRAFT 4A RECEIVER KPR-4A	54.95	49.45	214
KRA14401	KRAFT 200-066 ENGINE MT KM-40R	3.29	3.00	322	KRA83050	KRAFT 5A RECEIVER KPR-5A	54.95	49.45	214
KRA14601	KRAFT 200-067 ENGINE MT KM-60A	3.29	3.00	322	KRA83051	KRAFT 6A RECEIVER KPR-6A	64.95	57.95	213
KRA14602	KRAFT 200-068 ENGINE MT KM-60B	3.29	3.00	322	KRA83054	KRAFT KPR-6A/FM RECEIVER ***	59.95	87.95	213
KRA14700	KRAFT 200-069 ENGINE MT KM-70	3.49	3.20	322	KRA83071	KRAFT KPR-7C RECEIVER W/MODULE	59.95	87.95	215
KRA14804	KRAFT 200-208 ALUM MT 049 LONG	2.95	2.80	322	KRA83072	KRAFT KPR-7F FM RECEIVER ***	59.95	87.95	214
KRA14805	KRAFT 200-209 ALUM MT 049	2.95	2.80	322	KRA83110	KRAFT BATT CHARGER KBC-A AUTO	19.95	17.95	217
KRA14832	KRAFT 200-132 ALUM MT KRAHER61	5.95	5.35	322	KRA83125	KRAFT DUAL RATE BAT CHGR KBC-B	14.95	13.95	217
KRA14863	KRAFT 200-163 ALUM ENG MT .40F	5.49	4.95	322	KRA83130	KRAFT WALL TRANSFORMER A SETS	9.95	8.95	217
KRA14864	KRAFT 200-164 ALUM ENG MT .40R	6.49	5.85	322	KRA83183	KRAFT 200-183 32IN STD ANTENNA	1.49	1.40	216
KRA14865	KRAFT 200-165 ALUM ENG MT .60F	6.98	6.30	322	KRA83184	KRAFT 200-184 18IN SM. ANTENNA	2.49	2.35	216
KRA14866	KRAFT 200-166 ALUM ENG MT .60R	6.98	6.30	322	KRA83185	KRAFT 200-185 12IN WHIP ANTENNA	3.95	3.65	216
KRA14867	KRAFT 200-167 ALUM ENG MT .80	6.98	6.30	322	KRA83220	KRAFT BAT PK KB-4E 550 MA STD.	19.95	17.95	217
KRA14869	KRAFT 200-207 ALUM MT BHC	7.95	7.15	322	KRA83225	KRAFT BAT PK KB-4EA 550 MA STD	19.95	17.95	217
KRA14875	KRAFT 200-206 ALUM MT KB61PUMP	7.95	7.15	322	KRA83230	KRAFT BAT PK KB-4F 1000 MA	34.95	31.45	217
KRA14880	KRAFT 200-204 ALUM MT WEBRA 90	11.95	10.45	322	KRA83235	KRAFT BAT PK KB-4S 450 MA SQ.	19.95	17.95	217
KRA14882	KRAFT 200-205 ALUM MCUNT OS 90	11.95	10.45	322	KRA83246	KRAFT BAT PK KB-4SA 450 MA SQ.	19.95	17.95	217
KRA19C03	KRAFT 004-003 ELEC. MOTOR BATT	24.95	19.95	59	KRA83247	KRAFT BAT PK KB-4A 450 MA OBLG			



STOCK NO	DESCRIPTION	RETAIL PRICE	TOWER PRICE	PAGE #	STOCK NO	DESCRIPTION	RETAIL PRICE	TOWER PRICE	PAGE #
KRA88228	KRAFT KP-2AW 2 CH/2-15A/WHEEL	155.95	108.95	212	MID38235	MAPLE 3/8 X 3/8 X 18 6	4.80	4.30	300
KRA88233	KRAFT KP-3AS 3 CH/2-14A/1 ST	164.95	115.95	213	MID38240	MAPLE 3/8 X 1/2 X 18 6	5.10	4.60	300
KRA88234	KRAFT KP-3AS 3 CH/2-15A/1 ST	170.95	115.95	213	MID38245	MAPLE 3/8 X 3/4 X 18 6	5.40	4.85	300
KRA88242	KRAFT KP-4A 4 CH/4-14A/2 ST	329.95	217.95	213	MID38310	PLYWOOD 1/32 X 6 X 12 8	5.40	4.85	300
KRA88243	KRAFT KP-4A 4 CH/4-15A/2 ST	341.95	225.95	213	MID38315	PLYWOOD 1/16 X 6 X 12 8	5.70	5.15	300
KRA88251	KRAFT KP-5CS RADIO 5 CH, 1 ST	424.95	318.95	214	MID38320	PLYWOOD 1/8 X 6 X 12 3	4.20	3.90	300
KRA88252	KRAFT KP-5C RADIO 5 CH, 2 ST	414.95	305.95	214	MID38325	PLYWOOD 1/4 X 6 X 12 3	4.20	3.90	300
KRA88261	KRAFT KP-6A 6 CH/4-15A/2 ST	371.95	244.95	213	MID70900	MIDWEST 900 KLAMPON KAT OUTERC	51.95	36.35	157
KRA88262	KRAFT KP-6A 6 CH/4-14A/2 ST	359.95	237.95	213	MID70901	MIDWEST #901 ELCO PT-BOAT	79.95	59.95	157
KRA88264	KRAFT KP-6A/FM W/14A'S ***	399.95	269.95	213	MID71121	MIDWEST #121 LIL IT* GLIDER	29.95	22.45	137
KRA88265	KRAFT KP-6A/FM W/15A'S ***	411.95	277.95	213	MID71132	MIDWEST #132 SILENT SQUIRE	47.95	35.95	137
KRA88271	KRAFT KP-7CS RADIO 7 CH, 1 ST	559.95	416.95	215	MID72106	MIDWEST #106 TRI SQUIRE	39.95	29.95	67
KRA88272	KRAFT KP-7C RADIO 7 CH, 2 ST	549.95	405.95	215	MID72109	MIDWEST #109 LIL TRI SQUIRE	26.95	19.95	67
KRA88274	KRAFT KP-7C/FM ***	564.95	422.95	215	MID72122	MIDWEST #122 LITTLE STIK	35.95	24.95	67
KRA88275	KRAFT KP-7CS/FM ***	574.95	429.95	215	MID72125	MIDWEST #125 CARDINAL ARF	38.95	26.95	67
KRA88371	KRAFT SIGNATURE SERIES-1 STICK	999.95	899.95	215	MID72126	MIDWEST #126 SUPER CHIPMUNK	39.95	27.95	67
KRA88372	KRAFT SIGNATURE SERIES-2 STICK	899.95	814.95	215	MID72135	MIDWEST #135 PIPER J-3 CUB	Price unavailable at press time		69
KRA90000	KRAFT R/C ELECTRIC MOTOR/CYCLE	89.95	64.95	181	MID72139	MIDWEST #139 1/2A A4D SKY-HAWK	49.95	38.95	68
KRA90010	KRAFT READY-TO-RUN CYCLE W/2CH	249.95	165.95	181	MID72146	MIDWEST #146 LIVEWIRE CHAMP	46.95	32.95	68
KRA90100	KRAFT 004-015 CYCLE BATTERY	24.95	15.95	181	MID72149	MIDWEST #149 JESTER 20	54.95	41.95	69
LAN72119	LANIER LA119 CESSNA	52.95	36.95	60	MID72128	MIDWEST #128 SWEET STIK	46.95	32.95	67
LAN73108	LANIER LA108 TRANSIT	52.95	36.95	60	MID73130	MIDWEST #130 STRICKMASTER	80.95	56.65	67
LAN73146	LANIER LA146 PINTO	52.95	36.95	61	MID73134	MIDWEST #134 ATTACKER	47.95	33.55	67
LAN74105	LANIER LA105 CCMET II	65.95	45.95	61	MID73142	MIDWEST #142 HEINKEL 162	85.95	64.45	67
LAN74116	LANIER LA116 CAPRICE	75.95	52.95	60	MID73143	MIDWEST #143 TWIN STIK TRAINER	49.95	35.95	67
LAN74123	LANIER LA124 JESTER	75.95	52.95	60	MID73146	MIDWEST #147 TAYLORCRAFT	64.95	45.95	69
LAT20005	LATRAX BA-005 SPEED CONTROL	34.75	27.75	184	MID73148	MIDWEST #148 PATERN MASTER	64.95	45.95	69
LAT90011	LATRAX CP-011 ALPHA W/RADIO	75.60	54.95	183	MID73150	MIDWEST #150 BEERCAT BIPE	Price unavailable at press time		69
LAT90012	LATRAX CP-012 CCBRA W/RADIO	81.90	59.50	183	MID74127	MIDWEST #127 MARCH 1	94.95	69.95	67
LAT90018	LATRAX LTX18 CAMARO W/RADIO	87.95	64.95	184	MID74129	MIDWEST #129 CARDINAL SQUIRE	90.95	66.95	67
LAT90019	LATRAX LTX19 FIREBIRD W/RADIO	87.95	64.95	183	MID74131	MIDWEST #131 PITTS SPECIAL	110.00	79.95	67
LAT90040	LATRAX LTX-40 CORVETTE W/RADIO	220.50	144.95	182	MID74145	MIDWEST #145 SUPER ESQUIRE	94.95	69.95	68
LAT90041	LATRAX LTX41C FIREBIRD W/RADIO	220.50	144.95	183	MIL21237	MILMAN WHEELS #237-T 2 3/8 IN	23.25	22.25	373
LAT90042	LATRAX LTX42 PORSCHE W/RADIO	226.95	156.95	182	MIL21238	MILMAN WHEELS #237-S 2 3/8 IN	22.00	21.00	373
LAT90044	LATRAX LTX44 PICKUP W/RADIO	125.95	89.95	182	MIL21263	MILMAN WHEELS #262-T 2 5/8 IN	23.25	22.25	373
LAT90306	LATRAX LTX-06C NIC BATTERCHARGER	22.25	17.95	184	MIL21263	MILMAN WHEELS #262-S 2 5/8 IN	22.00	21.00	373
LAT90360	LATRAX QC-6 QUICK CHARGER	37.80	28.95	184	MIL21325	MILMAN WHEELS #325-S 3 1/4 IN	25.50	24.50	373
LE190000	LEISURE SIGMA-ACE DUNE BUGGY	200.00	169.95	184	MIL21326	MILMAN WHEELS #325-S 3 1/4 IN	24.25	23.25	373
LRT19000	LR TAYLOR ACCU CHARGER-12 VOLT	24.95	21.20	281	MIL21350	MILMAN WHEELS #350-T 3 1/2 IN	25.50	24.50	373
LRT80060	POWER PACER 8 V MODEL 200	59.95	45.95	312	MIL21351	MILMAN WHEELS #350-S 3 1/2 IN	24.25	23.25	373
LRT80096	POWER PACER 9.6 V MODEL 300	59.95	49.95	312	MIL21437	MILMAN WHEELS #437-T 4 3/8 IN	26.50	25.50	373
LRT80106	POWER PACER 10.8 V MODEL 400	59.95	49.95	312	MIL21438	MILMAN WHEELS #437-S 4 3/8 IN	25.50	24.50	373
LRT86000	LR TAYLOR MULTI CHARGER #1000	24.95	21.20	312	MIL21462	MILMAN WHEELS #462-T 4 5/8 IN	26.50	25.50	373
LRT90000	LR TAYLOR SUPER POWER PANEL	89.95	71.95	312	MIL21463	MILMAN WHEELS #462-S 4 5/8 IN	25.50	24.50	373
LRT92500	LR TAYLOR SUPER CHARGER #2500	29.95	24.75	281	MIL21475	MILMAN WHEELS #475-T 4 3/4 IN	27.50	26.50	373
MAA17104	MASTER AIRSCREW PROP 5.5X4	.65	.60	357	MIL21476	MILMAN WHEELS #475-S 4 3/4 IN	26.50	25.50	373
MAA17105	MASTER AIRSCREW PROP 5.5X4.5	.65	.60	357	MIL21500	MILMAN WHEELS #500-T 5 IN	27.50	26.50	373
MAA17112	MASTER AIRSCREW PROP 6X3	.65	.60	357	MIL21501	MILMAN WHEELS #500-S 5 IN	26.50	25.50	373
MAA17113	MASTER AIRSCREW PROP 6X3.5	.65	.60	357	MIL62000	MILLER #2000 COMPRESSOR	81.95	57.35	352
MAA17114	MASTER AIRSCREW PROP 6X4	.65	.60	357	MIL62017	MILLER #2017 SPRAY SET	95.95	63.95	352
MAA17124	MASTER AIRSCREW PROP 7X4	.65	.60	357	MIL62018	MILLER #2018 SPRAY SET	94.95	72.95	352
MAA17126	MASTER AIRSCREW PROP 7X6	.65	.60	357	MIL62040	MILLER #9040 METAL STORAGE BOX	19.95	16.45	352
MAA17132	MASTER AIRSCREW PROP 8X4	.75	.70	357	MIL62060	MILLER #9060 FCCT SWITCH	19.95	16.45	352
MAA17134	MASTER AIRSCREW PROP 8X6	.75	.70	357	MIL62085	MILLER #9080 INFLATOR KIT	5.45	4.90	352
MAA17144	MASTER AIRSCREW PROP 9X6	.95	.90	357	MIL62090	MILLER #9090 ADJ. PRESS. VALVE	5.45	4.90	352
MAA17154	MASTER AIRSCREW PROP 9.5X6	1.15	1.10	357	MIL62091	MILLER #9091 HCSE ADAPTOR	3.25	3.00	352
MAA17164	MASTER AIRSCREW PROP 10X6	1.15	1.10	357	MIL62100	MILLER #AB-100 BRUSH KIT	10.95	9.30	352
MAA17165	MASTER AIRSCREW PROP 10X7	1.15	1.10	357	MIL62134	MILLER #2134 SPRAY SET	109.95	72.95	352
MAA17175	MASTER AIRSCREW PROP 11X7	1.35	1.30	357	MIL62140	MILLER #14G SPRAY GUN	9.95	8.45	352
MAA17176	MASTER AIRSCREW PROP 11X7.5	1.35	1.30	357	MIL62160	MILLER #16G SPRAY GUN	12.95	10.95	352
MAL74200	MALLORY MODELS LASER 20C	179.95	165.95	62	MIL62180	MILLER #18G SPRAY GUN	19.95	16.45	352
MAR71001	MARKS MODELS WINDFER	44.95	32.50	135	MIL62381	MILLER #1380 AIR HOSE	5.45	4.90	352
MAR71002	MARKS MODELS WINDWARD	32.95	24.25	135	MOD71001	MODEL DYNAMICS GRYPHON	54.95	43.95	73
MAR71005	MARKS MODELS WANDERER 72 IN.	24.95	17.95	134	MNCN0200	MCNCKOTE #200 6 FT CLEAR	9.90	6.40	307
MAR71006	MARKS MODELS WANDERER 99 IN.	39.95	25.95	134	MNCN0201	MCNCKOTE #201 6 FT RED	9.90	6.40	307
MAR71007	MARKS MODELS BIRD OF TIME	59.95	41.95	135	MNCN0202	MCNCKOTE #202 6 FT ORANGE	9.90	6.40	307
MAR72000	MARKS MODELS SUNNY BIPE	34.95	25.95	62	MNCN0203	MCNCKOTE #203 6 FT YELLOW	9.90	6.40	307
MAR72004	MARKS MODEL RUSHWACKER W/ACCES	52.95	35.95	62	MNCN0204	MCNCKOTE #204 6 FT WHITE	9.90	6.40	307
MAR73010	MARKS MODELS SCORPION IV	39.95	25.95	62	MNCN0205	MCNCKOTE #205 6 FT ALUMINUM	9.90	6.40	307
MA572000	MASTER KIT PEPPERMINT PATTIE	39.95	31.95	63	MNCN0206	MCNCKOTE #206 6 FT SKY BLUE	9.90	6.40	307
MA573000	MASTER KIT STINGER-II BIPLANE	64.95	48.95	63	MNCN0207	MCNCKOTE #207 6 FT INSIG BLUE	9.90	6.40	307
MA573100	MASTER KIT HIPERBIPE	74.95	52.45	63	MNCN0208	MCNCKOTE #208 6 FT BLACK	9.90	6.40	307
MEN19200	MEN 12 VOLT GELL-CELL 6 AMP-HR	39.95	33.95	282	MNCN0209	MCNCKOTE #209 6 FT CHROME	9.90	6.40	307
MEN72000	MEN TRAINER .15-.25	37.95	29.95	64	MNCN0212	MCNCKOTE #212 6 FT CREAM	9.90	6.40	307
MEN73000	MEN BUZZARD PCMBEHELL	59.95	47.95	65	MNCN0213	MCNCKOTE #213 6 FT MARCEN	9.90	6.40	307
MEN73100	MEN TRAINER 40	59.95	47.95	64	MNCN0214	MCNCKOTE #214 6 FT GREEN	9.90	6.40	307
MEN73200	MEN J-3 PIPER CUB	49.95	39.95	64	MNCN0301	MCNCKOTE #301 6 FT TRANS RED	9.90	6.40	307
MEN74100	MEN BIG JOHN	129.95	99.95	65	MNCN0302	MCNCKOTE #302 6 FT TRANS ORANG	9.90	6.40	307
MEN86504	MEN C-50/4 RC SYSTEM CHARGER	36.95	33.25	282	MNCN0303	MCNCKOTE #303 6 FT TRANS YELLO	9.90	6.40	307
MF390000	MICROFLAME 4400 DLX WELD KIT	41.95	34.95	299	MNCN0304	MCNCKOTE #304 6 FT TRANS RLL	9.90	6.40	307
MF390001	MICROFLAME 1001 MICRONOX	2.25	2.15	299	MNCN0306	MCNCKOTE #306 6 FT TRANS GREEN	9.90	6.40	307
MF390002	MICROFLAME 1002 BUTANE	2.99	2.85	299	MNCN0401	MCNCKOTE #401 6 FT MET GREEN	11.70	7.95	307
MF391000	MICROFLAME 3100 BRAZ ROD KIT	7.75	6.95	299	MNCN0402	MCNCKOTE #402 6 FT MET BLUE	11.70	7.95	307
MHH72000	MICHIGAN HOBBY QUICKIE BIPE	41.95	31.45	66	MNCN0403	MCNCKOTE #403 6 FT MET PLUMB	11.70	7.95	307
MHH72001	MICHIGAN HOBBY QUICKIE	31.95	23.95	66	MNCN0404	MCNCKOTE #404 6 FT MET GOLD	11.70	7.95	307
MHH72002	MICHIGAN HOBBY SMALL WONDER	41.95	31.45	66	MNCN0405	MCNCKOTE #405 6 FT MET REC	11.70	7.95	307
MHH73000	MICHIGAN HOBBY MISS VINTAGE	61.95	44.95	66	MNCN0406	MCNCKOTE #406 6 FT MET BROWN	11.70	7.95	307
MHH73001	MICHIGAN HOBBY NEGOTIATOR	61.95	44.95	66	MNCN0503	MCNCKOTE #503 8 FT FL DEV GRAY	11.70	7.60	307
MHH73002	MICHIGAN HOBBY AEROTIQUE	61.95	44.95	65	MNCN1200	25 FT MCNCKOTE CLEAR	41.25	28.95	307
MHH72001	MILE HIGH MODELS JOY STICK	18.95	15.95	70	MNCN1201	25 FT MCNCKOTE ORANGE	41.25	28.95	307
MHH72002	MILE HIGH MDLS SUPER JOY STICK	36.95	25.95	70	MNCN1202	25 FT MCNCKOTE YELLOW	41.25	28.95	307
MHH72003	MILE HIGH MODELS 1/2 A HORNET	20.95	16.75	70	MNCN1203	25 FT MCNCKOTE WHITE	41.25	28.95	307
MHH72068	MILE HIGH MODELS P-8B TWIN C49	36.95	25.95	70	MNCN1205	25 FT MCNCKOTE ALUMINUM	41.25	28.95	307
MD17049	MIDWEST RK-049 AXIFLO FAN	40.95	32.75	241	MNCN1206	25 FT MCNCKOTE SKY BLUE	41.25	28.95	307
MD17200	MIDWEST RK-20B AXIFLO FAN	54.95	43.95	241	MNCN1207	25 FT MCNCKOTE INSIGNIA BLUE	41.25	28.95	307
MD17400	MIDWEST RK-40 AXIFLO FAN	49.95	39.95	241	MNCN1208	25 FT MCNCKOTE BLACK	41.25	28.95	307
MD131016	MIDWEST STYROMATE 16 OZ.	7.95	6.95	350	MNCN1209	25 FT MCNCKOTE CHROME	41.25	28.95	307
MD131108	MIDWEST STYROMATE THINNER 8 OZ	2.50	2.25	350	MNCN1212	25 FT MCNCKOTE CREAM	41.25	28.95	307
MD138005	BALSA 1/4 X 1/2 X 36 15	9.00	8.10	300	MNCN1213	25 FT MCNCKOTE MARCEN	41.25	28.95	307
MD138015	BALSA 1/4 X 1/4 X 36 23	9.20	8.30	300	MNCN1214	25 FT MCNCKOTE GREEN	41.25	28.95	307
MD138055	BALSA 1/16 X 3 X 36 10	9.00	8.10	300	MNCN1301	25 FT MCNCKOTE TRANS RED	41.25	28.95	307
MD138057	BALSA 3/32 X 3 X 36 10	10.50	9.45	300	MNCN1302	25 FT MCNCKOTE TRANS ORANGE	41.25	28.95	307
MD138060	BALSA 1/8 X 3 X 36 5	6.25	5.65	300	MNCN1303	25 FT MCNCKOTE TRANS YELLOW	41.25	28.95	307
MD138062	BALSA 3/16 X 3 X 36 5	7.50	6.75	300	MNCN1304	25 FT MCNCKOTE TRANS BLUE	41.25	28.95	307
MD138065	BALSA 1/4 X 3 X 36 5	9.00	8.10	300	MNCN1306	25 FT MCNCKOTE TRANS GREEN	41.25	28.95	307
MD138075	BALSA 1/16 X 4 X 36 10	14.00	12.60	3					



STOCK NO	DESCRIPTION	RETAIL PRICE	TOWER PRICE	PAGE #	STOCK NO	DESCRIPTION	RETAIL PRICE	TOWER PRICE	PAGE #
MNC42105	MONCKOTE TRIM ALUMINUM	1.39	1.30	368	NCR20410	.150 CABLE COLLET CONN. 1/4X28	4.95	4.45	160
MNC42106	MONCKOTE TRIM INSIGNIA BLUE	1.39	1.30	368	NCR20420	.187 CABLE COLLET CONN. 1/4X28	4.95	4.45	160
MNC42107	MONCKOTE TRIM GREEN	1.39	1.30	368	NCR20430	.187 CABLE COLLET CONN. 5/16X24	4.95	4.45	160
MNC42108	MONCKOTE TRIM GOLD	1.39	1.30	368	NCR20440	.187 CABLE COLLET CONN. 6MM	4.95	4.45	160
MNC42109	MONCKOTE TRIM BLACK	1.39	1.30	368	NCR70100	NORCC NEWPORT	74.95	55.95	160
MNC42110	MONCKOTE TRIM CHROME	1.39	1.30	368	NCST4001	BUD NCSEN AERONCA CHAMP - 9 FT	99.95	79.95	76
MNC42111	MONCKOTE TRIM CKBRD RED/WHITE	1.89	1.80	368	NCST4002	BUD NCSEN CESSNA 310 TWIN-10FT	169.95	135.95	76
MNC42112	MONCKOTE TRIM CKBRD RED/CLEAR	1.89	1.80	368	NCST4003	BUD NCSEN CITABRIA - 9 FT	99.95	79.95	76
MNC42113	MONCKOTE TRIM CKBRD BLK/WHITE	1.89	1.80	368	NCST4004	BUD NCSEN J-3 CUB - 9 FT	119.95	95.95	76
MNC42114	MONCKOTE TRIM CKBRD BLK/CLEAR	1.89	1.80	368	NCST4005	BUD NCSEN MR. MULLIGAN - 9 FT	139.95	111.95	74
MNC42120	MONCKOTE TRIM DAY-GLO RED	1.89	1.80	368	NCST4006	BUD NCSEN GERE SPORT BIPE-8 FT	129.95	103.95	74
MNC42121	MONCKOTE TRIM DAY-GLO ORANGE	1.89	1.80	368	NCST4007	BUD NCSEN JENNY - 8 FT	129.95	103.95	74
MNC42122	MONCKOTE TRIM SKY BLUE	1.89	1.80	368	NCST4008	BUD NCSEN TRAINER 8.5 FT	79.95	63.95	74
MNC42511	MKNKNG US AIRFORCE L-11	2.19	2.10	368	NCST4009	BUD NCSEN P-51D - 8.5 FT	169.95	135.95	75
MNC42512	MKNKNG MCKERN L-12	3.85	3.55	368	NCST4010	BUD NCSEN BIG STICK 8.5 FT	129.95	103.95	75
MNC42513	MKNKNG VINTAGE L-13	3.85	3.55	368	NCV90100	NCVA BIRD'S NEST	79.95	63.95	341
MNC42514	MKNKNG NAVY BLK. L-14B	2.19	2.10	368	CGT10016	CCTURA #1.6 PLASTIC PROP	.75	.70	166
MNC42515	MKNKNG NAVY WHT. L-14W	2.19	2.10	368	CGT10018	CCTURA #1.8 PLASTIC PROP	.85	.80	166
MNC42531	MKNKNG 1 IN NUMBRS L-31	1.39	1.30	368	CGT10020	CCTURA #2.0 PLASTIC PROP	.95	.90	166
MNC42532	MKNKNG 2 IN NUMBRS L-32	1.59	1.50	368	CGT10022	CCTURA #2.2 PLASTIC PROP	1.05	1.00	166
MNC42533	MKNKNG 3 IN NUMBRS L-33	1.99	1.90	368	CGT10024	CCTURA #2.4 PLASTIC PROP	1.25	1.20	166
MPC20000	MODEL PRCDUCTS HEAD LOCK	2.95	2.80	316	CGT10026	CCTURA #2.6 PLASTIC PROP	1.45	1.40	166
MPS80100	MPS PLANE-ALERT	19.95	17.95	310	CGT10028	CCTURA #2.8 PLASTIC PROP	1.65	1.55	166
MPS80200	MPS POWER-ALERT	24.95	22.45	310	CGT10700	CCTURA #X70 PLASTIC PROP	1.65	1.55	166
MPS80300	MPS SYSTEM-ALERT	32.95	28.95	310	CGT11240	CCTURA #1240 PLASTIC PROP	.75	.70	166
MRC01015	MRC .15 RC WITH MUFFLER	39.95	26.95	375	CGT11250	CCTURA #1250 PLASTIC PROP	.95	.90	166
MRC17100	MRC TURBO TRCL WATER JET	59.95	49.95	157	CGT11255	CCTURA #1255 PLASTIC PROP	1.05	1.00	166
MRC71100	MRC ARF YOUNGSTAR FOAM GLIDER	49.95	38.95	137	CGT11270	CCTURA #1270 PLASTIC PROP	1.65	1.55	166
MRC72000	MRC RTF HAWK TRAINER W/ENYA 15	99.95	83.25	72	CGT11435	CCTURA #1435 PLASTIC PROP	.65	.60	166
MRC72010	MRC RTF EAGLE W/.049 ENGINE	74.95	61.95	73	CGT11440	CCTURA #1440 PLASTIC PROP	.75	.70	166
MRC72020	MRC RTF CHIPMUNK W/ENYA .09 RC	114.95	91.95	73	CGT11445	CCTURA #1445 PLASTIC PROP	.85	.80	166
MRC72030	MRC RTF MESSERSCHMITT W/ENY 09	119.95	95.95	73	CGT11450	CCTURA #1450 PLASTIC PROP	.95	.90	166
MRC81200	MRC MR-12 SERVO-STANDARD	24.95	21.50	220	CGT11455	CCTURA #1455 PLASTIC PROP	1.05	1.00	166
MRC81232	MRC MR-32 RETRACT SERVO-180 C.	44.95	37.95	220	CGT11457	CCTURA #1457 PLASTIC PROP	1.15	1.10	166
MRC81262	MRC MR-62 SERVO-MINI	29.95	25.95	220	CGT11460	CCTURA #1460 PLASTIC PROP	1.25	1.20	166
MRC82010	MRC ST-1 TRAY-2X1	1.98	1.90	220	CGT11462	CCTURA #1462 PLASTIC PROP	1.35	1.30	166
MRC82020	MRC ST-2 TRAY-2X2	1.98	1.90	220	CGT11465	CCTURA #1465 PLASTIC PROP	1.45	1.40	166
MRC82030	MRC ST-3 TRAY-SIDE BY SIDE	1.98	1.90	220	CGT11470	CCTURA #1470 PLASTIC PROP	1.65	1.55	166
MRC82040	MRC ST-4 TRAY-SINGLE VERTICAL	1.98	1.90	220	CGT12035	CCTURA #2035 PLASTIC PROP	.65	.60	166
MRC82050	MRC ST-5 TRAY-SINGLE HORIZONTAL	1.98	1.90	220	CGT12045	CCTURA #2045 PLASTIC PROP	.85	.80	166
MRC82060	MRC ST-6 TRAY-PACKAGE FOR MR62	5.40	5.15	220	CGT12050	CCTURA #2050 PLASTIC PROP	.95	.90	166
MRC82090	MRC ST-9 TRAY-SIDE MT FOR MR62	1.35	1.30	220	CGT12055	CCTURA #2055 PLASTIC PROP	1.05	1.00	166
MRC82110	MRC ST-10 TRAY-2X1 FOR MR12	1.98	1.90	220	CGT12060	CCTURA #2060 PLASTIC PROP	1.25	1.20	166
MRC82110	MRC ST-11 TRAY-SIDE MT-MR12	1.98	1.90	220	CGT12160	CCTURA #2160 PLASTIC PROP	1.25	1.20	166
MRC83010	MRC SERVO EXTENSION CABLE	3.25	2.95	220	CGT13016	CCTURA #1.6 BERYL.COPPER PROP	8.25	7.85	166
MRC83100	MRC RECEIVER NICAD & CHARGER	21.95	18.65	220	CGT13018	CCTURA #1.8 BERYL.COPPER PROP	8.55	8.10	166
MRC83210	MRC TX BATT-772, 774, 2000, 3000	24.00	20.40	220	CGT13020	CCTURA #2.0 BERYL.COPPER PROP	8.85	8.40	166
MRC83220	MRC MINI REC BAT.-225MA SQUARE	16.00	13.95	220	CGT13022	CCTURA #2.2 BERYL.COPPER PROP	9.35	8.90	166
MRC83230	MRC RECEIVER BAT.-500MA SQUARE	16.00	13.95	220	CGT13024	CCTURA #2.4 BERYL.COPPER PROP	9.40	8.95	166
MRC86100	MRC DUAL BATTERY CHARGER	12.50	11.25	220	CGT13025	CCTURA #2.5 BERYL.COPPER PROP	9.60	9.10	166
MRC86207	MRC SWITCH HARNESS W/CHARG JAK	7.95	7.55	220	CGT13026	CCTURA #2.6 BERYL.COPPER PROP	9.70	9.20	166
MRC88321	MRC #2100 2CH/2MR12 STICK	169.98	82.95	218	CGT13028	CCTURA #2.8 BERYL.COPPER PROP	9.95	9.45	166
MRC88322	MRC #2000 2CH/2 MR12 2 STICK	99.98	74.95	218	CGT13455	CCTURA #X455 BERYL.COPPER PROP	9.35	8.90	166
MRC88332	MRC #3000 3CH/2 MR12/DRY BATT.	149.95	94.95	219	CGT13700	CCTURA #X70 BERYL.COPPER PROP	9.95	9.45	166
MRC88333	MRC #3000 3CH/2 MR12/RX NI-CAD	169.95	104.95	219	CGT14245	CCTURA #1245 BERYL.COPPER PROP	8.55	8.10	166
MRC88334	MRC #3000 3CH/2 MR12/ALL NICAD	188.95	119.95	219	CGT14250	CCTURA #1250 BERYL.COPPER PROP	8.85	8.40	166
MRC88342	MRC #4000 4CH/4 MR12/ALL NICAD	249.95	169.95	219	CGT14255	CCTURA #1255 BERYL.COPPER PROP	9.35	8.90	166
MRC88352	MRC #805 5CH/4 MR42/2 STICK	389.95	219.95	218	CGT14270	CCTURA #1270 BERYL.COPPER PROP	9.95	9.45	166
MRC88362	MRC #6000 6CH/4 MR12/2 STICK	299.95	214.95	219	CGT14440	CCTURA #1440 BERYL.COPPER PROP	8.25	7.85	166
MRC91003	MRC R1003 TYRRELL 6 WHEELER	77.98	62.35	188	CGT14445	CCTURA #1445 BERYL.COPPER PROP	8.55	8.10	166
MRC91010	MRC R1010 LIGIER J59 MATRA	74.98	59.95	188	CGT14450	CCTURA #1450 BERYL.COPPER PROP	8.85	8.40	166
MRC91011	MRC R1011 FERRARI 312T3	72.98	57.95	188	CGT14455	CCTURA #1455 BERYL.COPPER PROP	9.35	8.90	166
MRC91012	MRC R1012 LIGIER MATRA SPEC.	89.98	71.95	188	CGT14457	CCTURA #1457 BERYL.COPPER PROP	9.35	8.90	166
MRC91013	MRC R1013 MARCH 782 BMW	49.98	39.95	188	CGT14460	CCTURA #1460 BERYL.COPPER PROP	9.40	8.95	166
MRC91014	MRC R1014 MARTINI RENAULT	49.98	39.95	188	CGT14462	CCTURA #1462 BERYL.COPPER PROP	9.60	9.10	166
MRC91015	MRC R1015 RUGER RIDER	142.95	109.95	186	CGT14465	CCTURA #1465 BERYL.COPPER PROP	9.70	9.20	166
MRC91016	MRC R1016 SAND SCORCHER	149.95	114.95	186	CGT14467	CCTURA #1467 BERYL.COPPER PROP	10.60	9.75	166
MRC91201	MRC R1201 PORSCHE 934 TURBO	74.98	59.95	188	CGT14470	CCTURA #1470 BERYL.COPPER PROP	9.95	9.45	166
MRC91202	MRC R1202 MARTINI PORSCHE 935	77.98	62.35	187	CGT14560	CCTURA #1560 BERYL.COPPER PROP	9.40	8.95	166
MRC91204	MRC R1204 FMC COMBAT VEHICLE	84.98	67.95	187	CGT14567	CCTURA #1567 BERYL.COPPER PROP	10.60	9.75	166
MRC91205	MRC R1205 LAMB. COUNTACH STC.	77.98	62.35	187	CGT14650	CCTURA #1650 BERYL.COPPER PROP	8.85	8.40	166
MRC91206	MRC R1206 PORSCHE 936 TURBO	68.98	55.25	187	CGT14655	CCTURA #1655 BERYL.COPPER PROP	9.35	8.90	166
MRC91207	MRC R1207 LAMBERGHINI CHEETAH	89.98	71.95	187	CGT14662	CCTURA #1662 BERYL.COPPER PROP	9.60	9.10	166
MRC91208	MRC R1208 LAMB COUNTACH SPEC.	84.98	67.95	187	CGT14667	CCTURA #1667 BERYL.COPPER PROP	10.60	9.75	166
MRC91209	MRC R1209 CELICA TURBO SPEC.	84.98	67.95	188	CGT14747	CCTURA #1747 BERYL.COPPER PROP	8.70	8.25	166
MRC91317	MRC RA0817 RACING SIDE CAR	59.98	47.95	186	CGT14750	CCTURA #1750 BERYL.COPPER PROP	8.85	8.40	166
MRC91601	MRC RT1601 SHERMAN RC TANK	156.98	117.95	189	CGT14945	CCTURA #1945 BERYL.COPPER PROP	8.55	8.10	166
MRC91602	MRC RT1602 LEPARD RC TANK	199.98	149.95	189	CGT14950	CCTURA #1950 BERYL.COPPER PROP	8.85	8.40	166
MRC91603	MRC RT1603 GEPARD RC TANK	249.95	184.95	189	CGT14955	CCTURA #1955 BERYL.COPPER PROP	9.35	8.90	166
MRC92009	RC9 4-CELL BATT&CHGR 12C1-12C7	24.95	21.95	185	CGT14957	CCTURA #1957 BERYL.COPPER PROP	9.30	8.85	166
MRC92011	RC11 BATT & CHGR FOR 1601-1603	29.95	25.45	185	CGT15045	CCTURA #2045 BERYL.COPPER PROP	8.55	8.10	166
MRC92013	RC13 5-CELL BATT&CHG-HI PERFORM	29.95	25.45	185	CGT15050	CCTURA #2050 BERYL.COPPER PROP	8.85	8.40	166
MRC92014	RC14 6-CELL BATT&CHGR 1015&1016	34.95	29.95	185	CGT15055	CCTURA #2055 BERYL.COPPER PROP	9.35	8.90	166
MRC92020	MRC QUICK CHARGER FOR RC13&14	19.95	17.45	185	CGT15060	CCTURA #2060 BERYL.COPPER PROP	9.40	8.95	166
MRX70300	MARIX MOR300 OFFSHORE RACER 90	119.95	95.95	157	CGT15160	CCTURA #2160 BERYL.COPPER PROP	9.40	8.95	166
MRX70520	MARIX MDH520 CRAG HYDRO 20	79.95	63.95	157	CGT15250	CCTURA #2250 BERYL.COPPER PROP	8.85	8.40	166
MRX70540	MARIX MEH540 ELIMINATOR HYDRO	89.95	71.95	157	CGT15260	CCTURA #2260 BERYL.COPPER PROP	9.40	8.95	166
MNT17100	BCB MARTIN COVOTE SAILPLANE	84.95	63.95	136	CGT16005	CCTURA MCTGR MOUNT 3-30	4.35	4.15	162
MNT17100	BCB MARTIN KATIE II SAILPLANE	59.95	47.95	136	CGT16010	CCTURA MCTGR MOUNT 4-40	4.95	4.70	162
MNT17100	BCB MARTIN SR-7 SAILPLANE	59.95	79.95	136	CGT16015	CCTURA MCTGR MOUNT 4-50	5.45	5.20	162
MNT17100	BCB MARTIN CIRRUSS	149.95	119.95	137	CGT16020	CCTURA MCTGR MOUNT TWIN 20	10.45	9.60	161
MNT75000	DURALENE FUSELAGE FOR WANDERER	29.95	23.95	136	CGT16025	CCTURA MCTGR MOUNT SLANT 40	5.45	5.20	162
MNT75010	DURALENE FUSELAGE FOR AQUILA	29.95	23.95	136	CGT16030	CCTURA MCTGR MOUNT TWIN 40	10.95	10.10	162
MNT75020	MARTIN FUSELAGE-OLY II, PARAGON	29.95	25.45	136	CGT16035	CCTURA MCTGR MOUNT 60 MULTI	5.45	5.20	162
MUC20110	MUCKS #63 HARDWARE-LIL COLPHIN	57.95	44.95	159	CGT16040	CCTURA MCTGR MOUNT CMNI 60	4.15	3.95	162
MUC20120	MUCKS #65 HRCWE-MIGHTY COLPHIN	64.95	48.75	159	CGT16045	CCTURA MCTGR MOUNT 5-55	6.55	6.20	162
MUC20130	MUCKS #66 HOWE-STREAKER & SS44	77.95	58.45	158	CGT16050	CCTURA MCTGR MOUNT 5-60	6.90	6.55	162
MUC20140	MUCKS #67 HOW FOR LIL STREAKER	69.95	52.45	158	CGT16055	CCTURA MCTGR MOUNT SLANT 60	6.55	6.20	162
MUC70100	MUCKS #53 LIL LIGHTNING-WOOD	49.95	36.70	159	CGT16060	CCTURA MCTGR MOUNT SWIFT SWTH	15.50	13.95	161
MUC70101	MUCKS #56 LIL LIGHTNING-GLASS	99.50	74.65	159	CGT16070	CCTURA MCTGR MOUNT TWIN 60-M	16.25	14.65	162
MUC70105	MUCKS #57 MINI COLPHIN	29.95	24.75	159	CGT16075	CCTURA MCTGR MOUNT 6-60	8.20	7.80	162
MUC70110	MUCKS #55 LIL COLPHIN	36.95	29.50	159	CGT16078	CCTURA MCTGR MOUNT 6-90	10.25	9.45	162
MUC70120	MUCKS #59 MIGHTY COLPHIN	56.95	42.75	159	CGT16160	MCTCR MTG. T NUTS & BOLTS 6-32	.80	.75	161
MUC70130	MUCKS #71 LIL STREAKER 20	82.95	61.95	158	CGT16180	MCTCR MTG. T NUTS & BOLTS 8-32	1.10	1.05	161
MUC70140	MUCKS #58 STREAKER DEEP VEE	89.95	67.50	158	CGT16305	CCTURA STEEL FLYWHEEL 15	4.60	4.35	163
MUC70150	MUCKS #72 SUPER STREAKER 44	99.95	74.95	158	CGT16310	CCTURA STEEL FLYWHEEL 30	4.90		



STOCK NO	DESCRIPTION	RETAIL PRICE	TOWER PRICE	PAGE #	STOCK NO	DESCRIPTION	RETAIL PRICE	TOWER PRICE	PAGE #
CCT16365	CCTURA ALUM. FLYWHEEL 45A	5.50	5.25	163	CSM16743	CS MAX MUFFLER #743 40SREFSR	18.75	15.95	329
CCT16370	CCTURA ALUM. FLYWHEEL 45DRA	5.50	5.25	163	CSM16744	CS MAX MUFFLER #744 60SREFSR	20.55	17.45	329
CCT16375	CCTURA ALUM. FLYWHEEL 60A	6.35	6.05	163	PAC60090	FORMULA U 20090 8 OZ BLACK	3.29	3.10	353
CCT16380	CCTURA ALUM. FLYWHEEL 60DRA	6.35	6.05	163	PAC60091	FORMULA U 20091 8 OZ WHITE	3.29	3.10	353
CCT16385	CCTURA ALUM. FLYWHEEL 60DRRA	9.90	9.40	163	PAC60092	FORMULA U 20092 8 OZ DK RED	3.29	3.10	353
CCT16405	CCTURA COLLET 1/4"	1.15	1.10	163	PAC60093	FORMULA U 20093 8 OZ YELLOW	3.29	3.10	353
CCT16410	CCTURA COLLET 3/16"	1.15	1.10	163	PAC60094	FORMULA U 20094 8 OZ DK BLUE	3.29	3.10	353
CCT16415	CCTURA COLLET 7/32"	1.15	1.10	163	PAC60095	FORMULA U 20095 8 OZ GREEN	3.29	3.10	353
CCT16420	CCTURA COLLET 5/16"	1.15	1.10	163	PAC60096	FORMULA U 20096 8 OZ ORANGE	3.29	3.10	353
CCT16425	CCTURA COLLET 5MM	1.15	1.10	163	PAC60097	FORMULA U 20097 8 OZ ALUMINUM	3.29	3.10	353
CCT16430	CCTURA COLLET 6MM	1.15	1.10	163	PAC60098	FORMULA U 20098 8 OZ BR TAN	3.29	3.10	353
CCT16435	CCTURA COLLET 7MM	1.15	1.10	163	PAC60099	FORMULA U 20099 8 OZ LT BLUE	3.29	3.10	353
CCT16440	CCTURA COLLET 8MM	1.15	1.10	163	PAC60100	FORMULA U 20100 8 OZ MET RED	3.29	3.10	353
CCT16445	CCTURA COLLET K&BS	1.15	1.10	163	PAC60101	FORMULA U 20101 8 OZ MET GREEN	3.29	3.10	353
CCT16450	CCTURA COLLET K&BM	1.15	1.10	163	PAC60102	FORMULA U 20102 8 OZ MET GOLD	3.29	3.10	353
CCT16455	CCTURA COLLET OS40S	1.15	1.10	163	PAC60103	FORMULA U 20103 8 OZ FL. O.D.	3.29	3.10	353
CCT16505	CCTURA ENGINE U-JOINT 10-32 DX	2.90	2.75	166	PAC60104	FORMULA U 20104 8 OZ FL. TAN	3.29	3.10	353
CCT16510	CCTURA ENGINE U-JOINT 7/32 CLX	2.90	2.75	166	PAC60105	FORMULA U 20105 8 OZ FL. BLACK	3.29	3.10	353
CCT16515	CCTURA ENG.U-JOINT 5MM HC DLX	3.15	3.00	166	PAC60106	FORMULA U 20106 8 OZ FL. WHITE	3.29	3.10	353
CCT16520	CCTURA ENG.U-JOINT 6MM HC DLX	3.15	3.00	166	PAC60107	FORMULA U 20107 8 OZ CLEAR	3.29	3.10	353
CCT16525	CCTURA ENG.U-JOINT 7MM HC DLX	3.15	3.00	166	PAC60110	FORM U 20110 12 OZ SP BLACK	3.29	3.10	353
CCT16530	CCTURA ENG UJOINT 1/4-28 HCDLX	3.15	3.00	166	PAC60111	FORM U 20111 12 OZ SP WHITE	3.29	3.10	353
CCT16535	CCTURA ENG UJOINT 5/16-24 HCDLX	3.15	3.00	166	PAC60112	FORM U 20112 12 OZ SP DK RED	3.29	3.10	353
CCT16605	CC610FHD FEMALE U.WATER UJOINT	1.70	1.60	164	PAC60113	FORM U 20113 12 OZ SP YELLOW	3.29	3.10	353
CCT16610	CC610M MALE UNDERWATER U-JOINT	1.65	1.55	164	PAC60114	FORM U 20114 12 OZ SP DK BLUE	3.29	3.10	353
CCT17005	.150 FLEX. DRIVE SHAFT 20"	8.95	8.50	166	PAC60115	FORM U 20115 12 OZ SP GREEN	3.29	3.10	353
CCT17010	CCTURA OC6SC SHAFT COLLAR 3/16	.85	.80	164	PAC60116	FORM U 20116 12 OZ SP ORANGE	3.29	3.10	353
CCT17015	CCTURA OC6PMM TAIL NUT 3/16	.85	.80	164	PAC60117	FORM U 20117 12 OZ SP ALUMINUM	3.29	3.10	353
CCT17020	CCTURA OC60M DRIVE DOG 3/16	1.00	.95	164	PAC60118	FORM U 20118 12 OZ SP BR RED	3.29	3.10	353
CCT17025	CCTURA NEEDLE BEARING 3/16	3.00	2.85	164	PAC60119	FORM U 20119 12 OZ SP LT BLUE	3.29	3.10	353
CCT17030	CC6PSH PROP SHAFT W/DRIVE COG	3.50	3.35	164	PAC60120	FORM U 20120 12 OZ SP MET RED	3.29	3.10	353
CCT17105	CCTURA PARALLEL STRUT 1/2"	4.40	4.20	164	PAC60121	FORM U 20121 12 OZ SP MET GRN	3.29	3.10	353
CCT17110	CCTURA PARALLEL STRUT 3/4"	4.40	4.20	164	PAC60122	FORM U 20122 12 OZ SP MET GOLD	3.29	3.10	353
CCT17115	CCTURA PARALLEL STRUT 1"	4.40	4.20	164	PAC60123	FORM U 20123 12 OZ SP FL O.C.	3.29	3.10	353
CCT17120	CCTURA PARALLEL STRUT 1-1/4"	4.40	4.20	164	PAC60124	FORM U 20124 12 OZ SP FL TAN	3.29	3.10	353
CCT17125	CCTURA PARALLEL STRUT 1-1/2"	4.40	4.20	164	PAC60125	FORM U 20125 12 OZ SP FL BLACK	3.29	3.10	353
CCT17130	CCTURA PARALLEL STRUT 1-3/4"	4.40	4.20	164	PAC60126	FORM U 20126 12 OZ SP FL WHITE	3.29	3.10	353
CCT17205	CCTURA STD. ADJUSTABLE STRUT	7.95	7.55	164	PAC60127	FORM U 20127 12 OZ SP CLEAR	3.29	3.10	353
CCT17210	CCTURA DEEP V ADJUSTABLE STRUT	8.95	8.50	164	PAC60130	FORM U 20130 THINNER 1/2 PT.	1.85	1.75	353
CCT17215	SURFACE DRIVE ADJUSTABLE STRUT	9.45	9.00	164	PAC60131	FORM U 20131 THINNER 1 PT.	2.69	2.55	353
CCT17220	CCTURA STRUTTER ASSEMBLY	23.95	21.55	164	PAC63004	AEROGLOSS 30-4 FLAT BLACK	1.55	1.45	353
CCT17225	CCTURA TWIN DRIVE STRUTTER	45.95	38.95	164	PAC63104	AEROGLOSS 31-4 FLAT WHITE	1.55	1.45	353
CCT17230	CCTURA LARGE WEDGE RUDDER	11.25	10.35	164	PAC63404	AEROGLOSS 34-4 FLAT OLIVE DRAB	1.55	1.45	353
CCT17235	CCTURA MEDIUM WEDGE RUDDER	10.65	9.80	164	PAC63604	AEROGLOSS 36-4 FLAT CLOUD GRAY	1.55	1.45	353
CCT20000	CCTURA KCCL KLAMP #0	5.95	5.65	163	PAC63704	AEROGLOSS 37-4 FLAT CRMT GREEN	1.55	1.45	353
CCT20010	CCTURA KCCL KLAMP #1	5.95	5.65	163	PAC63804	AEROGLOSS 38-4 FLAT LGHT EARTH	1.55	1.45	353
CCT20020	CCTURA KCCL KLAMP #2	5.95	5.65	163	PAC63904	AEROGLOSS 39-4 FLAT DARK EARTH	1.55	1.45	353
CCT20030	CCTURA KCCL KLAMP #3	5.95	5.65	163	PAC64004	AEROGLOSS 40-4 FLAT CLEAR	1.55	1.45	353
CCT20040	CCTURA KCCL KLAMP #4	5.95	5.65	163	PAC64308	AEROGLOSS THINNER 8 OZ.	2.10	2.00	353
CCT20050	CCTURA KCCL KLAMP #5	5.95	5.65	163	PAC64316	AEROGLOSS THINNER 16 OZ.	3.10	2.85	353
CCT20060	CCTURA KCCL KLAMP #6	5.95	5.65	163	PAC64332	AEROGLOSS THINNER 32 OZ.	4.70	4.30	353
CCT20070	CCTURA KCCL KLAMP #7	5.95	5.65	163	PAC65008	AEROGLOSS 50-8 SILVAIRE ALUM	2.95	2.80	353
CCT20071	CCTURA BRASS WATER SCOOP #71	1.95	1.85	163	PAC65061	AEROGLOSS 50-165 SILVAIRE ALUM	3.29	3.10	353
CCT20080	CCTURA KCCL KLAMP #8	5.95	5.65	163	PAC65108	AEROGLOSS 51-8 CUB YELLOW	2.95	2.80	353
CCT20090	CCTURA KCCL KLAMP #9	5.95	5.65	163	PAC65161	AEROGLOSS 51-165 CUB YELLOW	3.29	3.10	353
CCT20100	CCTURA KCCL KLAMP #10	5.95	5.65	163	PAC65208	AEROGLOSS 52-8 CUB ORANGE	2.95	2.80	353
CCT20110	CCTURA KCCL KLAMP #11	5.95	5.65	163	PAC65261	AEROGLOSS 52-165 CUB ORANGE	3.29	3.10	353
CCT20120	CCTURA KCCL KLAMP #12	5.95	5.65	163	PAC65308	AEROGLOSS 53-8 STEARMAN RED	2.95	2.80	353
CCT20130	CCTURA KCCL KLAMP #13	5.95	5.65	163	PAC65361	AEROGLOSS 53-165 STEARMAN RED	3.29	3.10	353
CCT20140	CCTURA KCCL KLAMP #14	5.95	5.65	163	PAC65408	AEROGLOSS 54-8 FOKKER RED	2.95	2.80	353
CCT20500	CCTURA STARTER BELT	3.45	3.30	163	PAC65461	AEROGLOSS 54-165 FOKKER RED	3.29	3.10	353
QHS31010	CHIC SUPERSTAR FASTAPE 50"X1	4.95	4.55	276	PAC65704	AEROGLOSS 57-4 CESSNA GREEN	1.55	1.45	353
QHS31030	CHIC SUPERSTAR FASTAPE 50"X3	8.95	7.95	276	PAC65861	AEROGLOSS 58-165 STINSON GREEN	3.29	3.10	353
QHS60000	CHIC SUPERSTAR SOFTGLAS QT.	10.95	9.30	349	PAC66108	AEROGLOSS 61-8 CURTIS BLUE	2.95	2.80	353
QHS74000	CHIO SUPERSTAR ZLIN 2-50L .90	149.95	119.95	77	PAC66161	AEROGLOSS 61-165 CURTIS BLUE	3.29	3.10	353
QPS02121	QPS MARINE 3.5CC RC W/#392PIPE	139.00	112.95	242	PAC66208	AEROGLOSS 62-8 CORSAIR BLUE	2.95	2.85	353
QPS02140	QPS MARINE .40 RC W/#492 PIPE	162.00	125.95	242	PAC66261	AEROGLOSS 62-165 CORSAIR BLUE	3.29	3.10	353
QPS02160	QPS MARINE .60 RC W/#692 PIPE	195.00	149.95	242	PAC66308	AEROGLOSS 63-8 JET BLACK	2.95	2.85	353
QPS02165	QPS MARINE .65 RC W/#678 PIPE	246.00	189.95	242	PAC66361	AEROGLOSS 63-165 JET BLACK	3.29	3.10	353
QPS02190	QPS MARINE .90 RC W/#592 PIPE	365.00	319.95	242	PAC66408	AEROGLOSS 64-8 SWIFT WHITE	2.95	2.85	353
QPS02421	QPS 3.5CC RC CAR ENGINE	121.00	97.95	242	PAC66416	AEROGLOSS 64-16 SWIFT WHITE	4.55	4.20	353
QPS05160	QPS .60 RC BIG REC W/#692 PIPE	198.00	158.95	242	PAC66461	AEROGLOSS 64-165 SWIFT WHITE	3.29	3.10	353
QPS05161	QPS .60 RC URUS W/PERRY CARB	142.00	114.95	242	PAC66504	AEROGLOSS 65-4 CLEAR	1.55	1.45	353
QPS05162	QPS .65 RC W/#678 PIPE	246.00	199.95	242	PAC66516	AEROGLOSS 65-16 CLEAR	4.55	4.20	353
QPS16020	QPS #392 MUFFLED PIPE - 3.5CC	24.75	23.50	242	PAC66532	AEROGLOSS 65-32 CLEAR	7.00	6.30	353
QPS16040	QPS #492 MUFFLED PIPE - .40	27.75	26.35	242	PAC66561	AEROGLOSS 65-165 CLEAR	3.29	3.10	353
QPS16060	QPS #692 MUFFLED PIPE - .60	29.00	27.50	242	PAC66604	AEROGLOSS 66-4 ARMY CLIVE DRAB	1.55	1.45	353
QPS16120	QPS #328 NITRC PIPE - 3.5CC	19.50	18.50	242	PAC67008	AEROGLOSS 70-8 Balsa FILERCOAT	2.95	2.85	353
QPS16140	QPS #428 NITRC PIPE - .40	20.50	19.50	242	PAC67108	AEROGLOSS 71-8 SANDING SEALER	2.95	2.85	353
QPS16160	QPS #628 NITRO PIPE - .60	22.90	21.75	242	PAC67208	AEROGLOSS 72-8 BONANZA BLUE	2.95	2.85	353
QPS16291	QPS #091 MUFFLER FOR URUS .60	16.60	15.75	242	PAC68108	AEROGLOSS 81-8 METALLIC BLUE	2.95	2.85	353
CR173804	CRLINE DL804 VICTORY STICK	49.50	37.95	79	PAC68161	AEROGLOSS 81-165 METALLIC BLUE	3.29	3.10	353
CR173806	CRLINE DL806 POLYCRRAFT	59.95	45.95	78	PAC68204	AEROGLOSS 82-4 METALLIC GREEN	1.55	1.45	353
CR174000	CRLINE DL781 FOKKER C-VII	97.50	72.95	77	PAC68704	AEROGLOSS 87-4 FUEL PROOFER	1.55	1.45	353
CR174100	CRLINE DL792 SGWPTH VUP	119.50	85.95	77	PAC68761	AEROGLOSS 87-165 FUEL PROOFER	3.29	3.10	353
CR174200	CRLINE DL793 GWEYVILLE SPEC.	69.50	51.95	78	PAC68861	AEROGLOSS 88-165 CANDY RED	3.29	3.10	353
CR174805	CRLINE DL805 LIBERTY STICK	59.50	45.95	79	PAC68961	AEROGLOSS 89-165 CANDY ORANGE	3.29	3.10	353
CSM01015	CS MAX .15 RC W/MUFFLER	45.95	36.75	243	PAC69061	AEROGLOSS 90-165 CANDY PURPLE	3.29	3.10	353
CSM01020	CS MAX .20 RC W/MUFFLER	46.95	37.55	243	PAC69161	AEROGLOSS 91-165 CANDY YELLOW	3.29	3.10	353
CSM01025	CS MAX .25 RC ENGINE W/MUFFLER	49.95	39.95	243	PAN39301	PANAVISE MODEL 301 VISE	27.98	23.95	300
CSM01030	CS MAX .30 RC ENGINE W/MUFFLER	51.95	41.55	243	PEL92126	PEER. 2126 1/12 LAMB. CCUNTACH	110.00	69.95	190
CSM01035	CS MAX .35 RC ENGINE W/MUFFLER	60.00	47.95	243	PEL92127	PEER. 2127 1/12 LANCIA STRATOS	110.00	69.95	190
CSM01140	CS MAX .40 RC ENGINE W/MUFFLER	64.95	67.95	243	PEL92128	PEER. 2128 1/12 PORSCHE TURBO	110.00	69.95	190
CSM01210	CS MAX .10 FSR RC W/MUFFLER	44.95	34.95	243	PEL92204	PEERLESS 2204 QUICK CHARGER	27.95	23.75	190
CSM01225	CS MAX .25 FSR RC W/MUFFLER	67.95	54.95	243	PEL92211	PEERLESS 2211 250MA NICAD BATT	20.00	15.95	190
CSM01240	CS MAX .40 FSR RC W/MUFFLER	99.95	79.95	244	PEL92213	PEERLESS 2213 400MA CHARGER	110.00	69.95	190
CSM01245	CS MAX .45 FSR-H RC	115.95	92.75	244	PEL92231	PEER. 2231 1/20 BMW 3.5 CSL	100.00	59.95	190
CSM02510	CS MAX MARINE .10 FSR RC W/MUF	52.95	42.35	245	PEL92232	PEER. 2232 1/20 PORSCHE 935	100.00	59.95	190
CSM02660	CS MAX MARINE FS60 RC 4 CYCLE	259.95	199.95	245	PEL92233	PEER. 2233 1/20 PANTERA GR-5	100.00	59.95	190
CSM02690	CS MAX MARINE .90 RSR RC	299.00	225.95	245	PER11101	PERRY CARB 101 ST G 60-71	22.95	18.50	318
CSM04130	CS MAX .30 RC WANKEL W/MUFFLER	124.95	105.95	244	PER11103	PERRY CARB 103 WEBRA/KRAFT 61	22.95	18.50	318
CSM05145	CS MAX .45 FSR RC W/MUFFLER	119.95	95.95	244	PER11104	PERRY CARB 104 VECC K&B 61	22.95	18.50	318
CSM05150	CS MAX .50 FSR RC W/MUFFLER	119.95	95.95	244	PER11105	PERRY CARB 105 PP 61	22.95	18.50	318
CSM05161	CS MAX .61 FSR RC W/MUFFLER	159.95	127.95	244	PER11106	PERRY CARB 106 ST 51-60	22.95	18.50	318
CSM05190	CS MAX .90 FSR RC + #744 MUFF.	225.00	169.95	2					



STOCK NO	DESCRIPTION	RETAIL PRICE	TOWER PRICE	PAGE #	STOCK NO	DESCRIPTION	RETAIL PRICE	TOWER PRICE	PAGE #
PER11306	PERRY CARB 306 ST 20-23	18.45	14.95	318	PRC20150	#110 PULLEY ASSEMBLY 1	1.55	1.45	265
PER11308	PERRY CARB 308 VECO K&B 19	18.45	14.95	318	PRC20210	#202 RIGGING CABLE-25 FT	3.25	3.10	265
PER11316	PERRY CARB 313 ENYA 19	18.45	14.95	318	PRC20215	#203 CONTROL CABLE-25 FT	3.25	3.10	265
PER11401	PERRY CARB 316 K&B 21 SCHNEURL	18.45	14.95	318	PRC20250	#210 STRUT BOLT & NUT 4	.95	.90	265
PER11402	PERRY PRES CARB 900 K&B 61	23.95	19.25	318	PRC20320	#312 SWAGE FITTING 20	1.40	1.35	265
PER11403	PERRY PRES CARB 902 OS 60 BH	16.95	13.75	318	PRC20325	#313 STRUT FITTING 2	.80	.75	265
PER11404	PERRY PRES CARB 903 WEBRA 61	23.95	19.25	318	PRC20326	#313A CABLE ANCHOR FITTING 2	.80	.75	265
PER11405	PERRY PRES CARB 905 ST 51-60	23.95	19.25	318	PRC20350	#321 PULLEY ASSEMBLY 1	1.60	1.50	265
PER11406	PERRY PRES CARB 906 ST G60-71	23.95	19.25	318	PRC20351	#321A DOUBLE PULLEY ASSEMBLY 1	1.80	1.70	265
PER11407	PERRY PRES CARB 901 OS 60 FSR	16.95	13.75	318	PRC20360	#322 PULLEY ASSEMBLY 1	1.40	1.35	265
PER11410	PERRY PRES CARB 910 WEB SP 61	23.95	19.25	318	PRC74505	PROCTOR MINI-ANTIC #505	76.95	59.95	83
PER11411	PERRY PRES CARB 911 KRAFT 61	23.95	19.25	318	PRC74701	PROCTOR ANTC MONO #701	127.50	99.95	83
PER11470	PERRY PRES CARB 907 K&B 40	23.95	19.25	318	PRC74703	PROCTOR ANTC BIPE #703	149.50	111.95	83
PER11501	PERRY AIR CLEANER 51-71	2.95	2.65	318	PRC74801	PROCTOR NIEUPCRT II #801	219.95	164.95	83
PER11502	PERRY AIR CLEANER 15-50	2.95	2.65	318	PRE70020	PRECISION CRAPSHOOTER 20 W/HOW	217.00	199.65	168
PER11601	PERRY PRES PUMP 800 K&B 61	28.95	22.25	318	PRE70040	PRECISION CRAPSHOOTER 40 W/HOW	235.00	215.95	168
PER11602	PERRY PRES PUMP 802 OS 60 BH	28.95	22.25	318	PRE70060	PRECISION CRAPSHOOTER 60 W/HOW	253.00	232.95	168
PER11603	PERRY PRES PUMP 803 WEBRA 61	28.95	22.25	318	PRE70090	PRECISION CRAPSHOOTER 90 W/HOW	270.00	248.95	168
PER11605	PERRY PRES PUMP 805 ST 51-60	28.95	22.25	318	PRE70120	PRECISION WOOD EL DIABLO-DLX.	150.00	137.95	168
PER11606	PERRY PRES PUMP 806 ST G60-71	28.95	22.25	318	PRE70121	PRECISION ABS EL DIABLO	99.95	75.95	168
PER11607	PERRY PRES PUMP 801 OS 60 FSR	28.95	22.25	318	PRE90490	PRECISION 4900 BIG THUNDER	149.95	99.95	191
PER11610	PERRY PRES PUMP 810 WEB SP 61	28.95	22.25	318	PRO90801	PROVISION 80001 18-WHEELER	99.95	69.95	191
PER11611	PERRY PRES PUMP 811 KRAFT 61	28.95	22.25	318	QUA01200	QUADRA 2 CU IN AIRCRAFT ENGINE	139.95	99.95	245
PER11670	PERRY PRES PUMP 807 K&B 40	28.95	22.25	318	R+S10016	R+S HOBBY ENGINE CLEANER 16 OZ	3.00	2.85	319
PER11900	PERRY NEEDLE VALVES LG&MD CARB	1.20	1.15	318	R+S60008	R+S FOAM & BALSA FILLER 8 OZ.	2.99	2.85	354
PER11920	PERRY 8024 NEEDLE VALVE-PUMPER	3.60	3.40	318	R+S60010	R+S FOAM & BALSA FILLER 16 OZ.	4.99	4.75	354
PER11925	PERRY 8024-1 NEEDLE VALVE-LG.	3.60	3.40	318	R+S60100	R+S SPONGE BRUSH 1 IN. WIDE	.40	.35	354
PER11930	PERRY 8024-263 N. VALVE-SM&MIC	3.60	3.40	318	R+S60200	R+S SPONGE BRUSH 2 IN. WIDE	.60	.55	354
PER11940	PERRY 8026 O RING-ALL CARBS 2	1.25	1.20	318	R+S60801	R+S PAINT 8 OZ REC #P-01	3.49	3.35	354
PES52100	PERRY FUEL FILTER	1.59	1.45	332	R+S60802	R+S PAINT 8 OZ LIGHT BLUE P-02	3.49	3.35	354
PIC31012	PICA 1002 12 CZ. GLUIT	3.19	2.95	376	R+S60803	R+S PAINT 8 OZ ROYAL BLUE P-03	3.49	3.35	354
PIC42010	PICA 2001 DECAL RAF-LARGE	3.89	3.60	367	R+S60804	R+S PAINT 8 OZ YELLOW #P-04	3.49	3.35	354
PIC42020	PICA 2002 DECAL U.S. NAVY-LG.	3.89	3.60	367	R+S60805	R+S PAINT 8 OZ CRANGE #P-05	3.49	3.35	354
PIC42030	PICA 2003 DECAL GERMAN WW2-LG.	3.89	3.60	367	R+S60806	R+S PAINT 8 OZ LT. GREEN #P-06	3.49	3.35	354
PIC42040	PICA 2004 DECAL CIVILIAN	3.89	3.60	367	R+S60807	R+S PAINT 8 OZ PURPLE #P-08	3.49	3.35	354
PIC42050	PICA 2005 DECAL GERMAN WW2-LG-A	3.89	3.60	367	R+S60808	R+S PAINT 8 OZ BLACK #P-09	3.49	3.35	354
PIC42060	PICA 2006 DECAL GERMAN WW2 SM.	2.99	2.85	367	R+S60810	R+S PAINT 8 OZ WHITE #P-10	3.49	3.35	354
PIC42070	PICA 2007 DECAL GERMAN WW2 LG-B	3.89	3.60	367	R+S60811	R+S PAINT 8 OZ ALUMINUM #P-11	3.49	3.35	354
PIC42080	PICA 2008 DECAL GERMAN WWI LG.	3.89	3.60	367	R+S60812	R+S PAINT 8 OZ FLAT BLACK P-12	3.49	3.35	354
PIC42090	PICA 2009 DECAL GERMAN WWI SM.	2.99	2.85	367	R+S60813	R+S PAINT 8 OZ FLAT WHITE P-13	3.49	3.35	354
PIC42100	PICA 2010 DECAL U.S. WW2-LARGE	3.89	3.60	367	R+S60814	R+S PAINT 8 OZ CLEAR #P-14	3.49	3.35	354
PIC42110	PICA 2011 DECAL U.S. WW2-SMALL	2.99	2.85	367	R+S60815	R+S PAINT 8 OZ FLAT SATIN P-15	3.49	3.35	354
PIC42120	PICA 2012 DECAL U.S. WWI-LARGE	3.89	3.60	367	R+S60831	R+S PC-31 8 CZ TAN	3.49	3.35	354
PIC42130	PICA 2013 DECAL U.S. WWI-SMALL	2.99	2.85	367	R+S60832	R+S PC-32 8 CZ MIDDLESTONE	3.49	3.35	354
PIC42140	PICA 2014 DECAL RAF WW2-SMALL	2.99	2.85	367	R+S60833	R+S PC-33 8 CZ DARK EARTH	3.49	3.35	354
PIC42150	PICA 2015 DECAL RAF WWI-LARGE	3.89	3.60	367	R+S60834	R+S PC-34 8 CZ LT. BLUE	3.49	3.35	354
PIC42160	PICA 2016 DECAL RAF WWI-SMALL	2.99	2.85	367	R+S60835	R+S PC-35 8 CZ ASURE BLUE	3.49	3.35	354
PIC42210	PICA 2021 DECAL US WW2 SM-BLUE	2.99	2.85	367	R+S60836	R+S PC-36 8 CZ GREY	3.49	3.35	354
PIC42220	PICA 2022 DECAL RAF WW2-LARGE	3.89	3.60	367	R+S60837	R+S PC-37 8 CZ NATURAL GRAY	3.49	3.35	354
PIC61001	PICA 6001 FILLIT MICRO-BALLOON	2.39	2.25	349	R+S60838	R+S PC-38 8 CZ LT SL GRAY	3.49	3.35	354
PIC74001	PICA RC1 SPIFFIRE	99.95	72.95	80	R+S60839	R+S PC-39 8 CZ CK SL GRAY	3.49	3.35	354
PIC74002	PICA RC2 T-28B	99.95	72.95	80	R+S60840	R+S PC-40 8 CZ DARK GREEN	3.49	3.35	354
PIC74003	PICA RC3 FOCKE WULF 190	99.95	72.95	80	R+S60841	R+S PC-41 8 CZ NAVY GREEN	3.49	3.35	354
PIC74004	PICA RC4 WACO	99.95	72.95	81	R+S60842	R+S PC-42 8 CZ CLIVE DRAB	3.49	3.35	354
PIC74005	PICA RC5 DUELIST 2/40	99.95	72.95	81	R+S60844	R+S PC-44 8 CZ SEA BLUE	3.49	3.35	354
PIC74006	PICA RC6 CESSNA 182	109.95	78.95	81	R+S60845	R+S PC-45 8 CZ INTERNATNL BLUE	3.49	3.35	354
PIC74007	PICA RC7 JUNGHEIMER 133 BIPE	109.95	78.95	82	R+S60846	R+S PC-46 8 CZ LUCK BLUE	3.49	3.35	354
PIC74008	PICA RC8 RAPIER	Price unavailable at press time		82	R+S61201	R+S 12 OZ SPRAY #P-01 RED	3.99	3.80	354
PR1A0000	PRATHER 7140 ENGINE OIL	1.69	1.60	318	R+S61202	R+S 12 OZ SPRAY #P-02 LT BLUE	3.99	3.80	354
PR111220	8220 K&B40-45 120.EXH THROTTLE	49.95	44.95	318	R+S61203	R+S 12 OZ SPRAY #P-03 RYL BLUE	3.99	3.80	354
PR111230	8230 K&B40-45 200.EXH THROTTLE	49.95	44.95	318	R+S61204	R+S 12 OZ SPRAY #P-04 YELLOW	3.99	3.80	354
PR111240	8240 K&B3.5CC 120.EXH THROTTLE	44.95	40.45	318	R+S61205	R+S 12 OZ SPRAY #P-05 ORANGE	3.99	3.80	354
PR111250	8250 K&B3.5CC 200.EXH THROTTLE	44.95	40.45	318	R+S61206	R+S 12 OZ SPRAY #P-06 LT GREEN	3.99	3.80	354
PR200200	PRATHER 1020 HARDWARE - DV40	79.95	67.95	167	R+S61207	R+S 12 OZ SPRAY #P-07 SP GREEN	3.99	3.80	354
PR200500	PRATHER 1050 HARDWARE - DV20	69.95	59.45	167	R+S61208	R+S 12 OZ SPRAY #P-08 PURPLE	3.99	3.80	354
PR201005	PRATHER 3010 1/2 OZ. NOSE WT.	1.89	1.80	264	R+S61209	R+S 12 OZ SPRAY #P-09 BLACK	3.99	3.80	354
PR201110	PRATHER 3020 1 OZ. NOSE WT.	2.09	2.00	264	R+S61210	R+S 12 OZ SPRAY #P-10 WHITE	3.99	3.80	354
PR201115	PRATHER 3030 1 1/2 OZ. NOSE WT	2.09	2.00	264	R+S61211	R+S 12 OZ SPRAY #P-11 ALUMINUM	3.99	3.80	354
PR201210	PRATHER 3040 2 OZ. NOSE WT.	2.19	2.10	264	R+S61212	R+S 12 OZ SPRAY #P-12 FL BLACK	3.99	3.80	354
PR202060	PRATHER 3050 6 OZ. STICK-ON WT	2.39	2.25	264	R+S61213	R+S 12 OZ SPRAY #P-13 FL WHITE	3.99	3.80	354
PR210100	PRATHER 3000 PROP BALANCER	2.29	2.20	356	R+S61214	R+S 12 OZ SPRAY #P-14 CLEAR	3.99	3.80	354
PR210200	PRATHER 7000 MICRO BALLOONS	2.69	2.55	350	R+S61215	R+S 12 OZ SPRAY #P-15 FL SATIN	3.99	3.80	354
PR210300	7010 MIRACLE MICRO BALLOONS	2.29	2.20	350	R+S61216	R+S 12 OZ SPRAY #P-16 GRAY	3.99	3.80	354
PR210390	PRATHER 7030 TRANSMITTER COVER	5.95	5.35	342	R+S61231	R+S 12 OZ SPRAY PC-31 TAN	3.99	3.80	354
PR211180	PRATHER 4060 FLUSH CAMLOC	1.98	1.90	264	R+S61232	R+S 12 OZ SPRAY #PC-32 MIDLSTN	3.99	3.80	354
PR211190	PRATHER 7040 SUN SHIELD	4.98	4.60	342	R+S61233	R+S 12 OZ SPRAY PC-33 DK EARTH	3.99	3.80	354
PR212000	PRATHER 7050 PROP PITCH GAUGE	44.95	35.95	356	R+S61234	R+S 12 OZ SPRAY PC-34 LT BLUE	3.99	3.80	354
PR212110	PRATHER 5000 DRILL JIG VECO 61	5.95	5.25	322	R+S61235	R+S 12 OZ SPRAY PC-35 AZUR BLU	3.99	3.80	354
PR212220	PRATHER 5010 DRILL JIG VECO 19	5.95	5.25	322	R+S61236	R+S 12 OZ SPRAY PC-36 GREY	3.99	3.80	354
PR212330	PRATHER 5020 DRILL JIG K&B 40	5.95	5.25	322	R+S61237	R+S 12 OZ SPRAY PC-37 NAT GRAY	3.99	3.80	354
PR212590	PRATHER 5040 DRILL JIG ST 60BH	5.95	5.25	322	R+S61238	R+S 12 OZ SPRAY PC-38 LT GREY	3.99	3.80	354
PR212660	PRATHER 5050 DRILL JIG ST 46	5.95	5.25	322	R+S61239	R+S 12 OZ SPRAY PC-39 DK GREY	3.99	3.80	354
PR213000	PRATHER 5090 DRILL JIG OS 40	5.95	5.25	322	R+S61240	R+S 12 OZ SPRAY PC-40 OK GREEN	3.99	3.80	354
PR213010	PRA. 5091 DRILL JIG OS 40-45SR	5.95	5.25	322	R+S61241	R+S 12 OZ SPRAY PC-41 NAVY GRN	3.99	3.80	354
PR213114	PRA. 5140 DRILL JIG KRA/WEB 61	5.95	5.25	322	R+S61242	R+S 12 OZ SPRAY PC-42 OLIV DRB	3.99	3.80	354
PR213115	PRA. 5150 DRILL JIG OS 60SR	5.95	5.25	322	R+S61243	R+S 12 OZ SPRAY PC-43 FL CLEAR	3.99	3.80	354
PR213900	PRATHER 6010 RACING WHEELS	9.95	8.95	372	R+S61600	R+S PAINT THINNER PINT	2.99	2.85	354
PR214000	PRATHER 6030 EPCXY WHEEL PANTS	12.95	11.95	372	R+S63200	R+S F-16A JET FIGHTER-DELUXE	129.95	97.50	84
PR214100	PRATHER 6050 AXLE RETAINERS	2.49	2.35	372	RAM20100	RAM PI-001 PILOT-OLD TIMER	5.95	5.35	342
PR214170	PRATHER 6060 NOSEWHEEL BRAKE	2.49	2.35	372	RAM20102	RAM PI-002 PILOT-WHII ARMY	5.95	5.35	342
PR214900	PRATHER 4070 DZUS FASTENERS	1.69	1.60	264	RAM20103	RAM PI-003 PILOT-WHII NAVY	5.95	5.35	342
PR215000	PRATHER 7060 NYLON COATED CABL	1.49	1.40	264	RAM20105	RAM PI-004 PILOT WHII GERMAN	5.95	5.35	342
PR215800	PRATHER 3060 SPINNER BALANCER	7.95	7.15	363	RAM20105	RAM PI-005 PILOT-JET	5.95	5.35	342
PR216100	PRATHER 8100 RADIO BOX-DV20	19.95	17.95	167	RAM20360	RAM #35 RA-BOX 3"X5"X2.25"	9.95	8.95	169
PR216101	PRATHER 8101 RADIO BOX-DV40	19.95	17.95	167	RAM20360	RAM #36 RA-BOX 3"X6"X2.25"	9.95	8.95	169
PR217020	PRATHER 1030 31" DEEP VEE 20	94.95	77.95	167	RAM20450	RAM #45 RA-BOX 4"X5"X2.25"	9.95	8.95	169
PR217030	PRATHER 1000 DEEP VEE 40-60	109.95	89.95	167	RAM20460	RAM #46 RA-BOX 4"X6"X2.25"	9.95	8.95	169
PR217031	PRATHER 1010 DECK COVER-DV40	19.95	17.95	167	RAM70100	RAM QUICKIE 18	24.95	19.95	169
PR217040	PRATHER 1040 DECK COVER-DV20	18.95	17.05	167	RAM70200	RAM CHARGER	24.95	19.95	169
PR217162	PRATHER 2020 1/4 MGT. LIL TONY	89.95	71.95	82	RAM70300	RAM CH BEE 30	49.95	38.95	169
PR217301	PRATHER 2040 FORM. 1 LIL TONY	129.95	103.95	82	RCM90001	RCM FLIGHT TRAINING COURSE I	11.95	11.95	285
PR217318	PRATHER 2000 PANTHER	129.95	103.95	82	RCM90002	RCM FLIGHT TRAINING COURSE II	11.95	11.95	285
PRC20000	#0 TURNBUCKLE 2	1.95	1.85	265	RCM90003	RCM SCALE REFERENCE GUIDE	8.50	5.50	285
PRC20005	#1 TURNBUCKLE 2	2.10	2.00	265	RCM90004	RCM THE RC ENGINE-VOLUME I	4.95	4.95	285
PRC20010	#2 TURNBUCKLE 2	2.20	2.10	265	RCM90005	RCM THE RC ENGINE-VOLUME II	7.9		



STOCK NO	DESCRIPTION	RETAIL PRICE	TOWER PRICE	PAGE #	STOCK NO	DESCRIPTION	RETAIL PRICE	TOWER PRICE	PAGE #
RCS20038	ROCKET CITY #38 WING TAPE	.59	.55	267	RCP54100	RCBART #202 1/2 A SUPER PUMPER	15.95	12.75	333
RCS20054	ROCKET CITY #54 SWITCH MOUNT	1.29	1.15	267	RCB54200	RCBART #200 GAS SUPER PUMPER	19.95	15.95	333
RCS20055	ROCKET CITY #55 PIN CLAMP	.59	.55	267	RCB54300	RCBART #203 HI-VOLUME S. PUMPER	24.95	19.95	333
RCS20072	ROCKET CITY #72 PRO-TOW	4.98	4.60	337	RCB54500	RCBART #208 SUPER PUMPER MK IV	24.95	19.95	333
RCS23006	ROCKET CITY #06 PUSH-ROD ENDS	.79	.75	267	RCB54509	RCBART #209 S. PUMPER MK IV-GAS	28.95	22.95	333
RCS23007	ROCKET CITY #07 RETAINERS	.59	.55	267	RCB59000	RCBART #207 AUTIC MIX	9.95	7.95	333
RCS23008	ROCKET CITY #08 PUSH-ROD EXITS	.59	.55	267	RCB83500	RCBART STICK MIXER - SANWA	8.95	7.95	343
RCS23077	ROCKET CITY #77 H.C. BALL LINK	.98	.95	267	RCB83601	RCBART STICK MIXER - FUTABA	8.95	7.95	343
RCS24021	ROCKET CITY #21 NYLON HINGE	.59	.55	267	RCM22073	RHOM 1073 COLOR CODED TUBING	4.00	3.75	361
RCS25011	ROCKET CITY #11 MISSING LINK	.79	.75	267	RCM22100	RHOM 2 GEAR FCR FW-190	89.50	64.95	361
RCS25012	ROCKET CITY #12 LINK LESS HOWE	.79	.75	267	RCM22101	RHOM 2 GEAR - MAINS	87.00	62.95	361
RCS26009	ROCKET CITY #09 STEERING ARM	.79	.75	267	RCM22102	RHOM FAI 2 GEAR - SLIMLINE	79.95	59.95	361
RCS26010	ROCKET CITY #10 STEERING ARM	.79	.75	267	RCM22104	RHOM 3 GEAR - FIREWALL	125.00	87.50	361
RCS27022	ROCKET CITY #22 BOLTS 1/4-20	.79	.75	267	RCM22105	RHOM 3 GEAR - FLAT/BELLY MOUNT	125.00	87.50	361
RCS27035	ROCKET CITY #35 BOLTS 1/4-20	.79	.75	267	RCM22106	RHOM 90 DEGREE ROTATING 2 GEAR	114.95	79.95	361
RCS27036	ROCKET CITY #36 BOLTS 10-24	.59	.55	267	RCM22107	RHOM 90 DEGREE ROTATING 3 GEAR	139.95	109.95	361
RCS28014	ROCKET CITY #14 SERVO TAPE 1/8	.98	.95	267	RCM22108	RHOM 90 C. TURN GR. CONVERSION	24.95	22.45	361
RCS28044	ROCKET CITY #44 ARM KPS-11	.98	.95	267	RCM22114	RHOM 1004 NCSE GEAR - FIREWALL	42.50	33.95	361
RCS28045	ROCKET CITY #45 ARM KPS-12	.98	.95	267	RCM22115	RHOM 1005 NCSE GEAR-FLAT MOUNT	42.50	33.95	361
RCS28046	ROCKET CITY #46 ARM KPS-14E15	.98	.95	267	RCM22169	RHOM 1069 PRESSURE GAUGE	14.95	13.95	361
RCS28047	ROCKET CITY #47 ARM WORLD ENG.	.98	.95	267	RCM22182	RHOM 1082 FRECN - 14 CZ.	3.00	2.75	361
RCS28052	ROCKET CITY #52 OVRD KPS-14E15	.98	.95	267	RCM22184	RHOM 1084 OIL 1-1/4 CZ.	1.75	1.65	361
RCS28056	ROCKET CITY #56 ARM EK	.98	.95	267	RCM22185	RHOM 1085 LINE COUPLER-1 ONLY	2.00	1.90	361
RCS28060	ROCKET CITY #60 ARMS KPS 14E15	.98	.95	267	RCS02661	RCSI MARINE .61 RV RC W/PIPE	297.00	229.95	246
RCS28061	ROCKET CITY #61 ARMS WORLD ENG	.98	.95	267	RCS02690	RCSI MARINE .90 RV RC W/PIPE	379.00	279.95	246
RCS28063	ROCKET CITY #63 ARMS KPS 14E15 II	.98	.95	267	RCS06665	RCSI .65 RV RC W/PIPE	261.00	208.95	246
RCS28064	ROCKET CITY #64 ARM KPS 14E15 II	.98	.95	267	RCS06690	RCSI .90 RV RC W/PIPE	379.00	275.95	246
RCS28065	ROCKET CITY #65 OVRD KPS 14E15II	.98	.95	267	RCY19000	RCYAL PHCTCELL TACHOMETER	39.95	35.95	312
RCS28066	ROCKET CITY #66 ARMS EK	.98	.95	267	RCY20000	RCYAL INTERIOR - P-51 .60	9.95	9.45	85
RCS28071	ROCKET CITY #71 ARM KPS 14E15II	1.29	1.25	267	RCY20001	RCYAL INTERIOR - P-51 .40	8.95	8.50	85
RCS28075	ROCKET CITY #75 SERV TAPE 1/16	.98	.95	267	RCY20002	RCYAL INTERIOR - P-51 .20	7.95	7.55	85
RCS28076	ROCKET CITY #76 ARMS KPS-18	.98	.95	267	RCY20003	RCYAL INTERIOR - P-51 .049	7.95	7.55	85
RCS28082	ROCKET CITY #82 ARM-FUTABA	.98	.95	267	RCY20010	RCYAL INTERIOR - CORSAIR .60	9.95	9.45	85
RCS29001	ROCKET CITY #01 STANDARD HORNS	.59	.55	267	RCY20012	RCYAL INTERIOR - .40 CORSAIR	8.95	8.50	85
RCS29003	ROCKET CITY #03 MINI HORNS	.79	.75	267	RCY20014	RCYAL INTERIOR - CORSAIR .049	6.95	6.60	85
RCS29005	ROCKET CITY #05 AILERON LINKS	.79	.75	267	RCY20020	RCYAL INTERIOR - SPITFIRE .60	9.95	9.45	85
RCS29025	ROCKET CITY #25 BRACKET NOSE	.59	.55	267	RCY20030	RCYAL INTERIOR - FW190 .60	9.95	9.45	85
RCS29029	ROCKET CITY #29 SWIVEL LINKS	1.59	1.45	267	RCY20040	RCYAL INTERIOR - ZERO .60	9.95	9.45	85
RCS29034	ROCKET CITY #34 AIL LINKS N/TH	1.59	1.45	267	RCY20041	RCYAL INTERIOR - ZERO .40	8.95	8.50	85
RCS29039	ROCKET CITY #39 LINKS W/O HORN	1.29	1.20	267	RCY20042	RCYAL INTERIOR - ZERO .20	7.95	7.55	85
RCS29069	ROCKET CITY #69 SWIV W/O HORNS	.98	.95	267	RCY20043	RCYAL INTERIOR - ZERO .049	6.95	6.60	85
RCS55049	ROCKET CITY #49 TUBE SILL 30FT	15.00	12.75	332	RCY20050	RCYAL INTERIOR - BEARCAT	9.95	9.45	85
REV17140	REV-UP PRCP *PRC* 1 9X4	1.79	1.60	356	RCY20060	RCYAL INTERIOR - P-38	9.95	9.45	85
REV17142	REV-UP PRCP *PRC* 1 9X6	1.79	1.60	356	RCY20070	RCYAL INTERIOR - B17F	9.95	9.45	85
REV17146	REV-UP PRCP *PRC* 1 9X7	1.79	1.60	356	RCY20080	RCYAL INTERIOR - B-25	9.95	9.45	85
REV17152	REV-UP PRCP *PRC* 1 10X6	1.89	1.70	356	RCY20085	RCYAL INTERIOR - SMALL CESSNA	8.95	8.50	85
REV17153	REV-UP PRCP *PRC* 1 10X6W	1.89	1.70	356	RCY20086	RCYAL INTERIOR - LARGE CESSNA	9.95	9.45	85
REV17154	REV-UP PRCP *PRC* 1 10X6EW	1.99	1.80	356	RCY20088	RCYAL INTERIOR - CESSNA 310C	9.95	9.45	85
REV17162	REV-UP PRCP *PRC* 1 11X6	1.99	1.80	356	RCY20210	RCYAL BUILT-IN STARTING HRNSS.	4.95	4.70	317
REV17166	REV-UP PRCP *PRC* 1 11X7	1.99	1.80	356	RCY22001	RCYAL A6M3 ZERC 20 SIZE	55.95	47.55	86
REV17167	REV-UP PRCP *PRC* 1 11X7.5	1.99	1.80	356	RCY22002	RCYAL P-51D MUSTANG - MICI	54.95	46.70	86
REV17168	REV-UP PRCP *PRC* 1 11X7.75	1.99	1.80	356	RCY22003	RCYAL CESSNA 182 20 SIZE	59.95	48.40	86
REV17169	REV-UP PRCP *PRC* 1 11X8	1.99	1.80	356	RCY22006	RCYAL CESSNA 172 JR. 15-23	69.95	59.45	87
RCB20101	RCBART SUPER STAND	5.98	5.85	343	RCY22007	RCYAL BLERICT 09-15 MICI SIZE	44.95	37.95	87
RCB20201	RCBART SCALE GR STRUT S6SM1 LG	2.98	2.85	343	RCY23003	RCYAL CORSAIR F4U-1C JUNIOR	74.95	63.95	86
RCB20202	RCBART SCALE GR STRUT S6SM2 SM	2.98	2.85	343	RCY23012	RCYAL HEIN JUNIOR TONY	64.95	54.95	87
RCB20301	RCBART SCALE GR STRUT S6ST1 LG	2.98	2.85	343	RCY23016	RCYAL A6M3 ZERO 40-50	79.95	67.95	86
RCB20302	RCBART SCALE GR STRUT S6ST2 SM	2.98	2.85	343	RCY23018	RCYAL SPITFIRE JUNIOR	64.95	54.95	87
RCB20400	RCBART .40 P51 MAIN GEAR STRUT	3.98	3.65	343	RCY23022	RCYAL PIPER CLT JUNIOR	69.95	59.45	87
RCB20410	RCBART .60 P51 MAIN GEAR STRUT	3.98	3.65	343	RCY23023	RCYAL BLERICT X1 35-40	59.95	50.95	87
RCB20420	RCBART HPP15 HINGE PT. POCKET	2.49	2.35	266	RCY23051	RCYAL P-51 JR. 40-60 SIZE	79.95	67.95	90
RCB20425	RCBART FHP15 FLAT HINGE POCKET	2.49	2.35	266	RCY24001	RCYAL CESSNA 206 SKYWAGON	104.95	88.95	87
RCB21125	RCBART U250-1 ONLY 2-1/2 IN	2.50	2.45	373	RCY24002	RCYAL FW-190	104.95	88.95	88
RCB21127	RCBART U275-1 ONLY 2 3/4 IN	2.75	2.70	373	RCY24003	RCYAL CORSAIR F4U-1C 60-80	104.95	88.95	88
RCB21130	RCBART U300-1 ONLY 3 IN	3.00	2.95	373	RCY24004	RCYAL PHANTOM F4J	99.95	84.95	88
RCB21132	RCBART U325-1 ONLY 3-1/4 IN	3.25	3.20	373	RCY24005	RCYAL CESSNA 182 SKYLANE	104.95	88.95	88
RCB21135	RCBART U350-1 ONLY 3-1/2 IN	3.75	3.70	373	RCY24007	RCYAL B-25 TWIN	119.95	101.95	88
RCB21137	RCBART U375-1 ONLY 3-3/4 IN	4.00	3.95	373	RCY24008	RCYAL P-38 TWIN	134.95	114.95	88
RCB21225	RCBART U250 PAIR 2-1/2 IN	4.99	4.50	373	RCY24009	RCYAL SPIRIT CF ST. LOUIS	59.95	84.95	89
RCB21226	RCBART UX250 PR. DIAMOND TREAD	5.49	4.95	373	RCY24010	RCYAL PITTS-LITTLE STINKER	54.95	80.95	89
RCB21227	RCBART U275 PAIR 2-3/4 IN	5.49	4.95	373	RCY24011	RCYAL HEIN SENIOR TONY	104.95	88.95	89
RCB21228	RCBART UX275 PR. DIAMOND TREAD	5.99	5.40	373	RCY24013	RCYAL OSCAR NAKAJIMA K143	99.95	84.95	89
RCB21230	RCBART U300 PAIR 3 IN	5.99	5.40	373	RCY24014	RCYAL CESSNA 310 C TWIN	119.95	101.95	89
RCB21231	RCBART UX300 PR. DIAMOND TREAD	6.49	5.85	373	RCY24015	RCYAL A6M5 ZERC 60-80	104.95	88.95	89
RCB21232	RCBART U325 PAIR 3-1/4 IN	6.49	5.85	373	RCY24017	RCYAL SPITFIRE	59.95	84.95	90
RCB21233	RCBART UX325 PR. DIAMOND TREAD	6.99	6.30	373	RCY24021	RCYAL PIPER CLT SENIOR	99.95	84.95	90
RCB21235	RCBART U350 PAIR 3-1/2 IN	7.49	6.75	373	RCY24024	RCYAL CESSNA SKYPASTER	119.95	101.95	90
RCB21236	RCBART UX350 PR. DIAMOND TREAD	7.99	7.20	373	RCY24025	RCYAL FBF BEARCAT	104.95	88.95	90
RCB21237	RCBART U375 PAIR 3-3/4 IN	7.99	7.20	373	RCY24028	RCYAL S2 PITTS SPECIAL	99.95	84.95	90
RCB21239	RCBART UX375 PR. DIAMOND TREAD	8.49	7.65	373	RCY24030	RCYAL STAGGERWING BEECH	99.95	84.95	91
RCB21240	RCBART UX400 PAIR 4 IN	8.49	7.65	373	RCY24035	RCYAL B-17	174.95	147.95	84
RCB21241	RCBART UX400 PR. DIAMOND TREAD	8.99	8.10	373	RCY24047	RCYAL DOUGLAS C-47	129.95	110.45	91
RCB21255	RCBART UX550 PAIR 5-1/2 IN	Price unavailable at press time	373	RCY24051	RCYAL P-51C MUSTANG 60-80	104.95	88.95	91	
RCB21256	RCBART UX550 PR. DIAMOND TREAD	Price unavailable at press time	373	RCY24068	RCYAL TWIN P-68 VICTOR	89.95	76.95	91	
RCB21260	RCBART UX600 PAIR 6 IN	Price unavailable at press time	373	RCY24087	RCYAL JU 87C-5 STUKA	104.95	88.95	91	
RCB21261	RCBART UX600 PR. DIAMOND TREAD	Price unavailable at press time	373	RCY24109	RCYAL ME-109C	59.95	84.95	86	
RCB22002	RCBART 1/2 A RETRACT MAIN GEAR	16.95	13.55	360	RCY81105	TITAN SERVO RPIKA KRAFT SPORT	19.95	19.50	225
RCB22003	RCBART 1/2 A RETRACT TRI GEAR	25.95	20.75	360	RCY81110	TITAN SERVO RPIK TOWER KRAFCY	19.95	19.50	225
RCB22020	RCBART SCALE RETRACTS-2 GR	39.95	29.95	360	RCY81115	TITAN SERVO RPIK FUTABA	19.95	19.50	225
RCB22030	RCBART SCALE RETRACTS-3 GR	54.95	41.20	360	RCY81120	TITAN SERVO RPIK SANWA	19.95	19.50	225
RCB22040	RCBART H.C. SCALE RETRACTS-2GR	44.95	33.70	360	RCY81125	TITAN SERVO RPIK MRC	19.95	19.50	225
RCB22050	RCBART H.C. SCALE RETRACTS-3GR	59.95	44.95	360	RCY82010	RCYAL TRAY FCR TITAN-2+1	2.95	2.85	225
RCB22090	RCBART 90 DEG RCT. RETRACTS 2	49.95	37.50	360	RCY82020	RCYAL TRAY FCR TITAN-VERTICAL	1.50	1.45	225
RCB24215	RCBART HINGE POINTS 15	2.49	2.35	266	RCY82030	RCYAL TRAY FCR TITAN-HORIZONTAL	1.50	1.45	225
RCB24216	RCBART SUPER HINGE POINTS 15	3.98	3.65	266	SCB86100	SGO BATTERY TESTER	29.95	23.95	311
RCB24217	RCBART STEEL PIN HINGE POINTS 15	2.49	2.35	266	SCB86250	SGO 250 MA BATTERY PACK	16.95	15.25	221
RCB24218	RCBART MINI HINGE POINTS 15	2.49	2.35	266	SAN81381	SANWA 80381 SAIL WINCH SERVO	64.90	51.95	221
RCB24415	RCBART HINGE POINT FLATS 15	2.49	2.35	266	SAN81391	SANWA 80391 SERVO-STD	34.90	29.95	221
RCB24504	RCBART HCRNY HINGE POINTS 4	1.49	1.40	266	SAN81392	SANWA 80392 SERVO-STD-REVERSE	34.90	29.95	221
RCB24610	RCBART WATERPROOF BUSHINGS 2	2.49	2.25	266	SAN81411	SANWA 80411 SERVO-MICRO	29.95	25.95	221
RCB24600	RCBART RETRACTABLE TAILWHEEL	9.95	7.95	360	SAN81412	SANWA 80412 SERVO-MICRO-REVERSE	29.95	25.95	221
RCB28902	RCBART 396 SERVO TRIM ARM 4	1.98	1.90	266	SAN82161	SANWA 80161 TRAY-MICRO-AILERON	3.45	3.15	221
RCB28904	RCBART 397 SUPER TRIM ARM 4	1.98	1.90	266	SAN82162	SANWA 80162 TRAY-MICRO-DUAL	3.45	3.15	221
RCB28906	RCBART 398 1/2A TRIM ARM 4	1.98	1.90	266	SAN82163	SANWA 80163 TRAY-MICRO-2+1	3.45	3.15	221
RCB28908	RCBART 399 DUAL TRIM ARM 4	1.98	1.90	266	SAN82185	SANWA 80185 TRAY-STD-AILERON	3.45	3.15	221
RCB28926	RCBART 386 ADAPTOR-KPS 14E15 4	.98	.95	266	SAN82187	SANWA 80187 TRAY-STD-2+1	3.45	3.15	221
RCB28927	RCBART 387 ADAPTOR-KPS14								



STOCK NO	DESCRIPTION	RETAIL PRICE	TOWER PRICE	PAGE #	STOCK NO	DESCRIPTION	RETAIL PRICE	TOWER PRICE	PAGE #
SAN83160	SANWA 80160 EXT. SWITCH ACT.	1.80	1.70	221	SLM16110	SLM STD MUFF 1701 HP 61	11.95	10.45	326
SAN83167	SANWA 80167 SERVO WHEEL-STD.	3.45	3.15	221	SLM16111	SLM CCMP MUFF 2701 HP 61	15.95	13.55	326
SAN83179	SANWA 80179 DUAL BATT. CHARGER	19.90	17.50	221	SLM16200	SLM STD MUFF 1403 WEB 40 SCHNL	10.95	9.60	326
SAN88524	SANWA #8120 2CH/2SERVO/2ST-DRY	129.95	74.95	220	SLM16205	SLM STD MUFF 1404 WEB 40 BLKHD	10.95	9.60	326
SAN88533	SANWA #8130 3CH/2SERVO/1ST-DRY	139.95	97.95	221	SLM16220	SLM STD MUFF 1402 WEB 61 SCHNL	11.95	10.45	326
SAN88542	SANWA #8140 4CH/3SERVO/2ST-DRY	199.95	139.95	221	SLM16225	SLM STD MUFF 1401 WEBRA 91 SNL	11.95	10.45	326
SEA45202	SEALECTOR CUSTOM MODEL IRON	28.35	21.95	304	SLM16227	SLM SCALE 1 MUFF 3401 WEBRA 91	16.95	14.40	326
SEM6006	SEMCC BOLTON FT WEBRA 61 203SW	15.95	12.30	328	SLM16300	SLM STD MUFF 1101A ST60 BLU-D	10.95	9.85	326
SEM16006	SEMCC BOLTON FT ST60ABC 203SG	15.95	12.30	328	SLM16301	SLM CCMP MUFF 2101 ST60 BLUEHD	15.95	13.55	326
SEM16070	SEMCC 202V VERTICAL DOWN EXH.	14.95	12.95	328	SLM16305	SLM STD MUFF 1103 ST 15,23	9.95	8.95	326
SEM16120	SEMCC 203V VERTICAL DOWN EXH.	14.95	12.95	328	SLM16310	SLM STD MUFF 1102A ST 60SR,46	11.95	10.45	326
SEM16121	SEMCC MUFFLER #201-FS	13.95	10.75	328	SLM16311	2102 COMP MUFF ST,K&B,H&B,WEB61	15.95	13.55	326
SEM16122	SEMCC MUFFLER #202-FS	13.95	10.75	328	SLM16390	SLM STD MUFF 1303 VECO 19	9.95	8.95	326
SEM16122	SEMCC MUFFLER #203-FS	13.95	10.75	328	SLM16400	SLM STD MUFF 1302 K&B 35,40	10.95	9.60	326
SEM16161	SEMCC MUFFLER #201-ES	13.95	10.75	328	SLM16410	SLM STD MUFF 1301 K&B/WEB 61	11.95	10.45	326
SEM16162	SEMCC MUFFLER #202-ES	13.95	10.75	328	SLM16495	SLM STD MUFF 1204 OS MAX 15-25	9.95	8.95	326
SEM16163	SEMCC MUFFLER #203-ES	13.95	10.75	328	SLM16500	SLM STD MUFF 1202A OSMAX 30-40	9.95	8.95	326
SEP16181	SEMCC MUFFLER #201-BCT	13.95	10.75	328	SLM16503	SLM STD MUFF 1203 OS MAX 40FSR	10.95	9.60	326
SEP16182	SEMCC MUFFLER #202-BCT	13.95	10.75	328	SLM16510	SLM STD MUFF 1201A OSMAX 60-80	10.95	9.85	326
SEP16183	SEMCC MUFFLER #203-BCT	13.95	10.75	328	SLM16580	SLM STD MUFF 1504 ENYA 15-19	9.95	8.95	326
SEP16185	SEMCC MUFFLER #202-FA	13.95	10.75	328	SLM16600	SLM STD MUFF 1503 ENYA 29-45	10.95	9.60	326
SEP16186	SEMCC MUFFLER #203-FA	13.95	10.75	328	SLM16610	SLM STD MUFF 1501 ENYA 60	11.95	10.45	326
SEP16191	SEMCC MUFFLER FCIT PITTS #203P	14.95	11.50	328	SLM16690	SLM STD MUFF 1804 FOX 19-35	10.95	9.60	326
SEP16192	SEMCC MUFFLER PITTS JR #202PJ	14.95	11.50	328	SLM16700	SLM STD MUFF 1803 FOX 40&45 SR	10.95	9.60	326
SEP16193	SEMCC MUFFLER PITTS JR #203PJ	14.95	11.50	328	SLM16710	SLM STD MUFF 1802 FOX 60	11.95	10.45	326
SEP16201	SEMCC ADAPTOR #1-S ENYA 15-19	3.98	3.65	328	SLM16715	SLM STD MUFF 1801 FOX 78	11.95	10.45	326
SEP16202	SEMCC ADAPTOR #2-S OS 19-25	3.98	3.65	328	SLM16770	SLM STD MUFF 1601 KRAFT 61 SCH	11.95	10.45	326
SEP16203	SEMCC ADAPTOR #3-2 ST 19-23	3.98	3.65	328	SLM16771	SLM COMP MUFF 2601 KRAFT61 SCH	15.95	13.55	326
SEP16206	SEMCC ADAPTOR #6-S VECO 19	3.98	3.65	328	SLM16805	SLM BCAT EXT. 6105 U ALL 61	14.95	12.95	326
SEP16208	SEMCC ADAPTOR #8-S FOX 19-25	3.98	3.65	328	SLM16806	SLM BCAT EXT. 6106 U ALL 29-45	14.95	12.95	326
SEP16301	SEMCC ADAPTOR #1-M ENYA 29-40	3.98	3.65	328	SLM16808	SLM BCAT EXT. 6108 S ALL 61	14.95	12.95	326
SEP16302	SEMCC ADAPTOR #2-M OS 30-35-40	3.98	3.65	328	SLM16809	SLM BCAT EXT. 6109 S ALL 29-45	14.95	12.95	326
SEP16304	SEMCC ADAPTOR #4-M K&B 35-40	3.98	3.65	328	SLM16810	SLM BCAT EXT. 6110 S ALL 15-25	11.95	10.45	326
SEP16305	SEMCC ADAPTOR #5-M FOX 29-36	3.98	3.65	328	SLM16831	PIPE ADAPTOR 5101 ST 60BH & 71	13.95	12.20	326
SEP16316	SEMCC ADAPTOR #16-M OS 40 SNL	3.98	3.65	328	SLM16832	PIPE ADAPTOR 5102 ST,K&B,H&B,WEB	13.95	12.20	326
SEP16317	SEMCC ADAPTOR #17-M FOX 40 SNL	3.98	3.65	328	SLM16841	PIPE ADAPTOR 5201 OS 60FSR	13.95	12.20	326
SEP16318	SEMCC ADAPTOR #18-M WEB 40 SNL	3.98	3.65	328	SLM16843	PIPE ADAPTOR 5203 OS 40FSR	13.95	12.20	326
SEP16401	SEMCC ADAPTOR #1-L ENYA 45	3.98	3.65	328	SLM16845	PIPE ADAPTOR 5205 OS25SR,WB40B	13.95	12.20	326
SEP16402	SEMCC ADAPTOR #2-L ENYA 60 III	3.98	3.65	328	SLM16846	PIPE ADAPTOR 5401 WEBRA 91	13.95	12.20	326
SEP16404	SEMCC ADAPTOR #4-L OS 60	3.98	3.65	328	SLM16847	PIPE ADAPTOR 5502 ENYA 60FX	13.95	12.20	326
SEP16406	SEMCC ADAPTOR #6-L ST 51-56-60	3.98	3.65	328	SLM16850	PIPE ADAPTOR 5601 KRAFT 61	13.95	12.20	326
SEP16407	SEMCC ADAPTOR #7-L K&B 61 #72	3.98	3.65	328	SLM16852	PIPE ADAPTOR 5701 HP 61	13.95	12.20	326
SEP16413	SEMCC ADAPTOR #13-L WEBRA 61	3.98	3.65	328	SLM16854	PIPE ADAPTOR 5702 HP 40	13.95	12.20	326
SEP16417	SEMCC ADAPTOR #17-L ST 60-71	3.98	3.65	328	SLM16861	PIPE ADAPTOR 5105 ALL 61	13.95	12.20	326
SEP16421	SEMCC ADAPTOR #21-L FOX 60	3.98	3.65	328	SLM16862	PIPE ADAPTOR 5106 ALL 40	13.95	12.20	326
SEP16424	SEMCC ADAPTOR #21-L WEB 61 SNL	3.98	3.65	328	SLM16863	PIPE ADAPTOR 5107 ALL 15-25	11.95	10.45	326
SEP16426	SEMCC ADAPTOR #26-L HB 61	3.98	3.65	328	SLM16891	7102 HELICOPTER MUFFLER 40	16.95	14.85	326
SEP16427	SEMCC ADAPTOR #26-L FOX 45 SNL	3.98	3.65	328	SLM16892	7101 HELICOPTER MUFFLER 61	16.95	14.85	326
SEP16427	SEMCC ADAPTOR #27-L OS 60 SNL	3.98	3.65	328	SLM16901	8001 12" TUBING W/SPRING 15	4.95	4.55	326
SEP16502	SEMCC REPLACEMENT STRAP #202RS	2.49	2.35	328	SLM16902	8002 12" TUBING W/SPRING 40-60	5.95	5.35	326
SEP16503	SEMCC REPLACEMENT STRAP #203RS	2.49	2.35	328	SLM16903	8003 12" TUBING W/SPRING 90	5.95	5.35	326
SEP16522	SEMCC 40EXT 1/2 IN MUFF EXTN	4.95	4.55	328	SLM16904	8004 4" SILICON TUBING 15	1.95	1.85	326
SEP16523	SEMCC 40EXT 1/2 IN MUFF EXTN	4.95	4.55	328	SLM16905	8005 4" SILICON TUBING 40	1.95	1.85	326
SEP16524	SEMCC 40EXT 1/2 IN MUFF EXTN	4.95	4.55	328	SLM16906	8006 4" SILICON TUBING 60	1.95	1.85	326
SEP16525	SEMCC 40EXT 1/2 IN MUFF EXTN	4.95	4.55	328	SLM16921	SLM REPLACEMENT CLAMP 15-90	1.95	1.85	326
SEP16531	SEMCC EXHAUST EXTENSION #201EM	4.95	4.55	328	SM71000	SMITH RTF SEABREEZE-PAINTED	229.95	195.00	139
SEP16532	SEMCC EXHAUST EXTENSION #202EM	4.95	4.55	328	SM71010	SMITH RTF SEABREEZE-UNPAINTED	169.95	144.45	139
SEP16533	SEMCC EXHAUST EXTENSION #203EM	4.95	4.55	328	SL46001	SCARFILM #6001 BRIGHT REC	8.75	5.40	308
SHI91100	SHINSEI PETERBILT AUTO-CARRIER	199.95	169.95	192	SL46002	SCARFILM #6002 DARK REC	8.75	5.40	308
SHI91110	SHINSEI PETERBILT FLAT BED	199.95	149.95	192	SL46003	SCARFILM #6003 ORANGE	8.75	5.40	308
SHI91200	SHINSEI FIREFOX OFF ROAD RACER	99.95	79.95	192	SL46004	SCARFILM #6004 YELLOW	8.75	5.40	308
SHI91300	SHINSEI MOUNTAIN MAN BLAZER	129.95	99.95	193	SL46005	SCARFILM #6005 WHITE	8.75	5.40	308
SIG72003	SIG #RC-3 PIPER J-3 CUB	49.95	39.95	95	SL46006	SCARFILM #6006 SILVER	8.75	5.40	308
SIG72026	SIG #RC-26 CLIPPED WING CUB	49.95	39.95	96	SL46007	SCARFILM #6007 TROPIC BLUE	8.75	5.40	308
SIG72031	SIG #RC-31 KACET TRAINER	44.95	35.95	92	SL46008	SCARFILM #6008 MIDNIGHT BLUE	8.75	5.40	308
SIG72036	SIG #RC-36 KLIPPER	25.95	20.75	93	SL46009	SCARFILM #6009 BLACK	8.75	5.40	308
SIG72037	SIG #RC-37 SUPER SPORT	24.50	19.60	93	SL46601	SCARFILM #6601 TRANS RED	10.20	6.30	308
SIG72043	SIG #RC-43 CCLT	25.95	20.75	93	SL46603	SCARFILM #6603 TRANS ORANGE	10.20	6.30	308
SIG72045	SIG #RC-45 SCAMP	24.50	19.60	94	SL46604	SCARFILM #6604 TRANS YELLOW	10.20	6.30	308
SIG73030	SIG #RC-30 CITABRIA	72.50	57.95	96	SL46608	SCARFILM #6608 TRANS BLUE	10.20	6.30	308
SIG73032	SIG #RC-32 KOMMANDER	49.95	39.95	94	SL47801	SCARFILM #7801 METALLIC RED	11.50	7.15	308
SIG73035	SIG #RC-35 KUGAR MKII	52.50	41.95	99	SL47810	SCARFILM #7810 METALLIC GREEN	11.50	7.15	308
SIG73038	SIG #RC-38 SMITH MINIPLANE	59.95	47.95	96	SL47811	SCARFILM #7811 METALLIC GOLD	11.50	7.15	308
SIG73039	SIG #RC-39 KAVALLER	49.95	39.95	94	SC520000	SCNIC SYSTEMS TM1 DISC BRAKE	15.95	12.75	372
SIG73042	SIG #RC-42 KIWI	47.50	37.95	93	SC522001	SCNIC 201 NGSE GEAR RETRACT	19.95	16.95	362
SIG73046	SIG #RC-46 KACET JUNIOR	34.95	27.95	92	SC522002	SCNIC 200 2 GEAR RETRACTS	19.95	16.95	362
SIG74001	SIG #KBRC-1 SUPER CHIMPUNK	69.95	55.95	97	SC522304	SCNIC 100 GR-3A SYS. W/CHARGER	59.95	47.95	362
SIG74002	SIG #KBRC-2 P-51 MUSTANG	69.95	55.95	97	SC522305	SCNIC 101 GR-3X SYS.W/CHARGER	49.95	39.95	362
SIG74004	SIG #KBRC-4 CESSNA 150	82.50	65.95	97	SC522400	SCNIC 301 SUPER CHARGER II	12.95	10.95	362
SIG74005	#KBRC-5 CESSNA SKY-HAWK 172	89.95	69.95	98	SC522401	SCNIC 309 QUICK-DISCONNECTS-2	3.95	3.55	362
SIG74027	SIG #RC-27 RYAN ST	87.95	69.95	95	SC522402	SCNIC 302 MONITAIRE	7.95	7.15	362
SIG74029	SIG #RC-29 KOMET Balsa SKIN	57.50	45.95	94	SC522403	SCNIC 303 AIR CYLINDER	9.95	8.95	362
SIG74033	SIG #RC-33 LIBERTY SPORT	79.95	63.95	95	SC522404	SCNIC 304 CONTROL VALVE	10.00	8.95	362
SIG74034	SIG #RC-34 SKYHCLT	77.50	61.95	95	SC522405	SCNIC 308 T-CONNECTORS-PAIR	1.50	1.45	362
SIG74041	SIG #RC-41 BEECHCRAFT BONANZA	77.50	61.95	95	SC522406	SCNIC 320 PRESSURE REGULATOR	13.95	12.20	362
SM69050	SIMMENS 1/2" CAMEL HAIR BRUSH	1.15	1.10	354	SCU71001	SOUTHWESTERN TOP CAT SAILPLANE	29.95	23.25	138
SM69075	SIMMENS 3/4" CAMEL HAIR BRUSH	2.25	2.15	354	SCU72002	SOUTHWESTERN HONKER 1/2A	21.95	17.50	101
SM69100	SIMMENS 1" CAMEL HAIR BRUSH	2.85	2.70	354	SCU72003	SOUTHWESTERN HONKER BIPE	34.95	26.75	101
SM69825	SIMMENS ARTIST BRUSH SET	2.75	2.60	354	SCU72005	SOUTHWESTERN LI'L GYPSY	22.95	18.35	101
SM69855	SIMMENS ALL PURPOSE BRUSH SET	2.10	2.00	354	SCU72006	SOUTHWESTERN GYPSY LADY	35.95	27.50	101
SKY73100	SKYGLAS ME-109 - .40	55.00	39.95	100	SP170100	SPICKLER RASCAL TUNNELHULL	55.00	43.95	169
SKY73101	SKYGLAS ZERC - .40	55.00	39.95	100	SP172200	SPICKLER QUICKIE 200	19.95	16.95	99
SKY73102	SKYGLAS PHCENIX 5	55.00	39.95	100	SP173500	SPICKLER QUICKIE 500 KIT	43.95	34.95	99
SKY74000	SKYGLAS CUREARE	70.00	49.95	100	SP213101	SU-PR-LINE M-RCD MASTEROD	1.69	1.60	269
SKY74001	SKYGLAS VERTIGC II	70.00	49.95	100	SP213102	SU-PR-LINE XF-RCD MASTEROD-XF	1.69	1.60	269
SKY74002	SKYGLAS P-47N THUNDERBOLT	70.00	49.95	100	SP213201	SU-PR-LINE 35 IN. NYROD	1.59	1.50	269
SKY74003	SKYGLAS PHOENIX 6	70.00	49.95	100	SP213301	SU-PR-LINE P-RCD PROROD	1.98	1.85	269
SKY74004	SKYGLAS F8F BEARCAT	70.00	49.95	100	SP213401	SU-PR-LINE S-RCD SU-PR-RCD	1.69	1.60	269
SLM16001	SLM CCMP MUFF 2105 ALL 60-80	15.95	13.55	326	SP213501	SU-PR-LINE PR PRORODAPTORS	.59	.55	269
SLM16002	SLM CCMP MUFF 2106 ALL 29-45	15.95	13.55	326	SP213903	SU-PR-LINE SN STUCENUTS 256	.49	.45	269
SLM16003	SLM SCALE 1 MUF 3105 ALL 60-80	15.95	13.95	326	SP213904	SU-PR-LINE KVS SU-PR-KLEVIS	.79	.75	269
SLM16004	SLM SCALE 1 MUF 3106 ALL 29-45	15.95	13.95	326	SP213905	SU-PR-LINE KPR SU-PR-KEEPSR	.69	.65	269
SLM16005	SLM SCALE 2 MUF 4105 ALL 60-80	15.95	13.95	326	SP213906	SU-PR-LINE NY NYRODAPTORS	.59	.55	269
SLM1									



STOCK NO	DESCRIPTION	RETAIL PRICE	TOWER PRICE	PAGE #	STOCK NO	DESCRIPTION	RETAIL PRICE	TOWER PRICE	PAGE #
SQU90021	1021 B24 LIBERATOR IN ACTION	4.95	4.70	286	STR55326	SCNICTRONICS #226R 30 ROLL LG	12.95	10.95	334
SQU90022	1022 A7 CORSAIR IN ACTION	4.95	4.70	286	STR90000	SCNICTRONICS #150 POWER PANEL	39.95	29.95	312
SQU90023	1023 B52 IN ACTION	4.95	4.70	286	SULL12200	SULLIVAN ELECTRIC STARTER #HT	41.00	28.75	314
SQU90024	1024 F15 EAGLE IN ACTION	4.95	4.70	286	SULL12201	SULLIVAN DELUXE STARTER #HTC	45.00	31.50	314
SQU90025	1025 P38 LIGHTNING IN ACTION	4.95	4.70	286	SULL12202	SULLIVAN 24 VOLT STARTER	49.95	34.95	314
SQU90026	1026 CURTISS P40 IN ACTION	4.95	4.70	286	SULL12204	SULLIVAN RUB ADAPT SPINR #RASP	1.15	1.05	314
SQU90027	1027 F104 STARFIGHTER IN ACT.	4.95	4.70	286	SULL12205	SULLIVAN RUBBER ADAPT CAR #RAC	1.75	1.65	314
SQU90028	1028 B47 IN ACTION	4.95	4.70	286	SULL12206	SULLIVAN ALUM DRIVE CONE #4-1	4.95	4.50	314
SQU90029	1029 F4U CORSAIR IN ACTION	4.95	4.70	286	SULL18211	SULLIVAN ADAPTOR 1/4-28 #PL28	1.10	1.05	365
SQU90030	1030 FB110 ZERSTORER IN ACTION	4.95	4.70	286	SULL18212	SULLIVAN ADAPTOR 7 MM. #PL7	1.10	1.05	365
SQU90031	1031 B29 SUPERFORTRESS IN ACT.	4.95	4.70	286	SULL18213	SULLIVAN ADAPTOR 6 MM. #PL6	1.10	1.05	365
SQU90032	1032 F14 TOMCAT IN ACTION	4.95	4.70	286	SULL18214	SULLIVAN ADAPTOR 5/16-24 #PL24	1.10	1.05	365
SQU90033	1033 F86 SABRE IN ACTION	4.95	4.70	286	SULL18331	SULLIVAN SPINNER 2 RED	.80	.75	365
SQU90034	1034 B25 MITCHELL IN ACTION	4.95	4.70	286	SULL18332	SULLIVAN SPINNER 2 BLACK	.80	.75	365
SQU90035	1035 F-111 IN ACTION	4.95	4.70	286	SULL18333	SULLIVAN SPINNER 2 WHITE	.80	.75	365
SQU90036	1036 F6F HELLCAT IN ACTION	4.95	4.70	286	SULL18341	SULLIVAN SPINNER 2 1/4 RED	.80	.75	365
SQU90037	1037 A-26 INVADER IN ACTION	4.95	4.70	286	SULL18342	SULLIVAN SPINNER 2 1/4 BLACK	.80	.75	365
SQU90038	1038 F-5 IN ACTION	4.95	4.70	286	SULL18343	SULLIVAN SPINNER 2 1/4 WHITE	.80	.75	365
SQU90039	1039 SPITFIRE IN ACTION	4.95	4.70	286	SULL18351	SULLIVAN SPINNER 2 1/2 RED	.80	.75	365
SQU96001	6001 ACES OF THE EIGHTH	5.95	5.35	286	SULL18352	SULLIVAN SPINNER 2 1/2 BLACK	.80	.75	365
SQU96015	6015 SOVIET AIRCRAFT OF TODAY	7.95	7.15	286	SULL18353	SULLIVAN SPINNER 2 1/2 WHITE	.80	.75	365
SQU96016	6016 USAF AIRCRAFT OF TODAY	7.95	7.15	286	SULL18361	SULLIVAN SPINNER 2 3/4 RED	.80	.75	365
SQU96019	6019 MODERN ARMOR	9.95	8.95	286	SULL18362	SULLIVAN SPINNER 2 3/4 BLACK	.80	.75	365
SQU96020	6020 MIG ALLEY	7.95	7.15	286	SULL18363	SULLIVAN SPINNER 2 3/4 WHITE	.80	.75	365
SQU96024	6024 USAF COLCORS VOL 1 1926-42	7.95	7.15	286	SUL23036	SULLIVAN GOLD-N-ROD FLEX GRF36	1.60	1.50	270
SQU96028	6028 SUPERFORTRESS-BOEING B-29	7.95	7.15	286	SUL23048	SULLIVAN GOLD-N-ROD FLEX GRF48	1.80	1.60	270
SQU96029	6029 GERMAN FIGHTERS OF WWII	6.95	6.25	286	SUL52100	SULLIVAN CT-1 CRAP TRAP FILTER	1.15	1.10	334
SQU96501	6501 CENTURY SERIES IN COLOR	8.95	8.05	286	SUL52110	SULLIVAN CT-P CRAP TRAP-PUMP	1.25	1.20	334
SS590000	STA-BRITE SILVER SOLDER	9.20	7.95	301	SUL53000	SULLIVAN SS-1 TANK	1.90	1.80	335
STA72000	STAFFORD B-24C LIBERATOR	199.95	149.95	102	SUL53001	SULLIVAN SS-2 TANK	2.10	2.00	335
STA72011	STAFFORD BUCCANEER -FOAM WING	44.95	35.95	103	SUL53004	SULLIVAN SS-4 TANK	2.30	2.20	335
STA73040	STAFFORD TOMKITTY MK-40 FOAM	64.95	49.95	102	SUL53006	SULLIVAN SS-6 TANK	2.40	2.30	335
STA73100	STAFFORD TWIN COMANCHE Balsa	149.95	112.95	103	SUL53008	SULLIVAN SS-8 TANK	2.50	2.40	335
STA74004	STAFFORD P-39 AIRACOBRA FOAM	69.95	53.95	102	SUL53010	SULLIVAN SS-10 TANK	2.60	2.45	335
STA74005	STAFFORD COMANCHE -Balsa WING	89.95	69.95	103	SUL53012	SULLIVAN SS-12 TANK	2.75	2.60	335
STA74006	STAFFORD ACRC SPT -FOAM WING	89.95	69.95	103	SUL53014	SULLIVAN SS-14 TANK	2.95	2.80	335
STA74007	STAFFORD ACRC SPT -Balsa WING	89.95	69.95	103	SUL53016	SULLIVAN SS-16 TANK	3.20	3.05	335
STA74008	STAFFORD CHIPMUNK -FOAM WING	89.95	69.95	103	SUL53106	SULLIVAN SO-6 TANK	2.40	2.30	335
STA74009	STAFFORD AIRCUPPE -Balsa WING	89.95	69.95	102	SUL53108	SULLIVAN SO-8 TANK	2.50	2.40	335
STA74010	STAFFORD WEEKENDER -FOAM WING	69.95	53.95	102	SUL53110	SULLIVAN SO-10 TANK	2.60	2.45	335
STA74011	STAFFORD SPERRY MESSENGER-Balsa	69.95	53.95	103	SUL53112	SULLIVAN SO-12 TANK	2.75	2.60	335
STET0001	STERLING LV-1 SPACE SQUIRT	27.95	22.35	193	SUL53204	SULLIVAN CR-4 TANK	2.20	2.10	335
STET0026	STERLING B-26 PUDDLE JUMPER	21.95	17.55	170	SUL53206	SULLIVAN CR-6 TANK	2.35	2.25	335
STET0027	STERLING B-27 PUD. JUMPER MKII	47.95	35.95	170	SUL53208	SULLIVAN CR-8 TANK	2.40	2.30	335
STET0028	STERLING B-28 KRIS KRAF	19.95	16.95	170	SUL53210	SULLIVAN CR-10 TANK	2.60	2.45	335
STET2001	STERLING FS-1 TRI-PAGER 19-35	44.95	33.70	104	SUL53212	SULLIVAN CR-12 TANK	2.75	2.60	335
STET2002	STERLING FS-2 CESSNA 180	29.95	23.95	104	SUL53304	SULLIVAN CSS-4 TANK	2.35	2.25	335
STET2006	STERLING FS-6 PIPER CUB J-3	33.95	26.95	104	SUL53306	SULLIVAN CSS-6 TANK	2.60	2.45	335
STET2022	STERLING FS-22 S.E.5A	56.95	42.70	104	SUL53308	SULLIVAN CSS-8 TANK	2.70	2.55	335
STET2029	STERLING FS-29 FLEDGLING	48.95	35.95	104	SUL53310	SULLIVAN CSS-10 TANK	2.85	2.70	335
STET2031	STERLING FS-31 CITABRIA	47.95	35.95	104	SUL53312	SULLIVAN CSS-12 TANK	2.95	2.80	335
STET2035	STERLING FS-35 MINI-FLEDGLING	28.95	22.95	104	SUL53404	SULLIVAN CRST-4 TANK	2.35	2.25	335
STET2036	STERLING FS-36 1/2 A CORSAIR	35.95	26.95	105	SUL53406	SULLIVAN CRST-6 TANK	2.60	2.45	335
STET2037	STERLING FS-37 TRIPACER 049-10	33.95	26.95	104	SUL53408	SULLIVAN CRST-8 TANK	2.70	2.55	335
STET4008	STERLING FS-8 PIPER CRUISER	64.95	48.70	104	SUL53410	SULLIVAN CRST-10 TANK	2.85	2.70	335
STET4020	STERLING FS-20 STEARMAN PT-17	115.95	80.95	104	SUL53412	SULLIVAN CRST-12 TANK	2.95	2.80	335
STET4021	STERLING FS-21 FOKKER D-VII	169.95	76.95	104	SUL53504	SULLIVAN RST-4 TANK	2.20	2.10	335
STET4032	STERLING FS-32 GAZARIATR	73.95	53.60	104	SUL53506	SULLIVAN RST-6 TANK	2.30	2.20	335
STET4033	STERLING FS-33 STINSON RELIANT	74.95	63.70	104	SUL53508	SULLIVAN RST-8 TANK	2.40	2.30	335
STET4034	STERLING FS-34 WACO	83.95	58.75	104	SUL53510	SULLIVAN RST-10 TANK	2.50	2.40	335
STG00142	SUPERTIGRE X 40 RV SPEED ABC	104.95	83.95	247	SUL53512	SULLIVAN RST-12 TANK	2.65	2.50	335
STG01061	SUPERTIGRE ST .60 RC BB W/MUFF	89.95	71.95	247	SUL53601	SULLIVAN R-1 TANK	1.85	1.75	335
STG01147	SUPERTIGRE .46 RC W/MUFFLER	84.95	67.95	247	SUL53602	SULLIVAN R-2 TANK	1.95	1.85	335
STG01160	SUPERTIGRE G60 RC ABC BLUEHEAD	109.95	87.95	247	SUL53604	SULLIVAN R-4 TANK	2.05	1.95	335
STG05011	SUPERTIGRE X .11 RC SCHL W/MUF	45.95	36.75	247	SUL53606	SULLIVAN R-6 TANK	2.15	2.05	335
STG05025	SUPERTIGRE X .25 RC SCHL W/MUF	74.95	59.95	247	SUL53608	SULLIVAN R-8 TANK	2.25	2.15	335
STG05040	SUPERTIGRE X .40 RC SCHL W/MUF	99.95	79.95	247	SUL53610	SULLIVAN R-10 TANK	2.40	2.30	335
STG05046	SUPERTIGRE X .45 RC RE SCHNRLE	104.95	83.95	247	SUL53612	SULLIVAN R-12 TANK	2.50	2.40	335
STG05060	SUPERTIGRE X .60 SL RC SE SCHL	134.95	107.95	247	SUL53616	SULLIVAN R-16 TANK	2.75	2.60	335
STG05160	SUPERTIGRE X .60 SP RC RE SCHL	134.95	107.95	247	SUL53800	SULLIVAN PKT TANK STOPPER ASSY	1.45	1.40	335
STG16000	STG #1291 TUNED PIPE - X45	33.05	27.95	329	SUL55100	SULLIVAN FF FILTERED FUELER 4"	2.50	2.40	335
STG16002	STG #1161 TUNED PIPE - X60 RE	39.75	33.75	329	SUP90000	SUPERIOR SMOKE-RITER	2.95	2.50	342
STG16004	STG #0730 TUNED PIPE - X60 SE	39.75	33.75	329	SLR72108	SUREFLITE 109 SKYLANE 182	44.95	32.95	106
STG16023	SUPERTIGRE MUFFLER FOR 15-25	17.25	14.65	329	SLR72114	SUREFLITE 116 ALL FOAM J3 CUB	44.95	32.95	106
STG16035	SUPERTIGRE MUFFLER FOR 35-46	17.25	14.65	329	SLR72123	SUREFLITE 123 CGA-3 PETE-FOAM	34.95	25.95	107
STG16050	SUPERTIGRE MUFFLER FOR ST60BB	17.25	14.65	329	SLR72124	SUREFLITE 124 1/2A J-3 FOAM	34.95	25.95	106
STG16060	SUPERTIGRE MUFFLER G60-71.X60SE	17.25	14.65	329	SLR73122	SUREFLITE 122 SPITFIRE-FOAM	44.95	32.95	107
STR12200	SCNICTRONICS #200 ADAPTOR STD.	.98	.85	314	SLR73128	SUREFLITE 128 SPOT FIRE	44.95	32.95	107
STR12201	SCNICTRONICS #201 ADAPTOR	.98	.85	314	SLR73129	SUREFLITE 129 P-39 AIRACOBRA	44.95	32.95	106
STR12204	SCNICTRONICS #204 BELT 300 MM	5.95	5.35	314	SLR77301	SUREFLITE 109 SKYLANE 182	17.95	15.25	342
STR12205	SCNICTRONICS #205 BELT 500 MM	5.95	5.35	314	TAR11000	TARNO AERC 1/2 A RC TARNO-CARB	14.75	12.50	319
STR12206	SCNICTRONICS #206 ALUMINUM CLIP	6.95	6.25	314	TAT16102	TATCNE #102 PEACE PIPE 29-40	13.00	11.35	329
STR15300	SCNICTRONICS 300 RC LONG PLUG	1.69	1.50	319	TAT16202	TATCNE #102L PEACE PIPE 29-40	14.00	12.25	329
STR15305	SCNICTRONICS 305 RC SHORT PLUG	1.69	1.50	319	TAT16401	TATCNE EM-5 INVERTED MANIFOLD	14.00	12.25	329
STR20230	SCNICTRONICS #230 SEATING 1/16	.85	.80	268	TAT16402	TATCNE EM-55 MANIFOLD-SIDE EXH	15.00	12.75	329
STR20231	SCNICTRONICS #231 SEATING 3/8	.95	.90	268	TAT16404	TATCNE EM-5B MANIFOLD-DOWN EXH	14.00	12.25	329
STR20232	SCNICTRONICS #232 SEATING 1/4	.90	.85	268	TAT16406	TATCNE #306 MUFFLER KCB 40	16.50	13.95	329
STR20235	SCNICTRONICS #235 MOUNTING 1/16	.99	.95	268	TAT19095	TATCNE #95 GLCW PLUG STARTER	7.50	6.75	282
STR20236	SCNICTRONICS #236 MOUNTING 1/8	1.09	1.05	268	TAT20009	TATCNE SCALE INSTRUMENTS 1/4	4.00	3.70	368
STR20238	SCNICTRONICS #238 SHRINK TAPE	1.45	1.35	268	TAT20010	TATCNE SCALE INSTRUMENTS 5/16	4.00	3.70	368
STR20240	SCNICTRONICS #240 PROTEC-A-PAC	1.69	1.60	268	TAT20011	TATCNE SCALE INSTRUMENTS 3/8	5.00	4.50	368
STR20255	SCNICTRONICS #255 TAPE 1 1/2	.95	.90	268	TAT20012	TATCNE SCALE INSTRUMENTS 7/16	5.00	4.50	368
STR20256	SCNICTRONICS #256 TAPE 3 IN.	1.49	1.40	268	TAT20013	TATCNE SCALE INSTRUMENTS 1/2	5.75	5.20	368
STR20257	SCNICTRONICS #257 TAPE 6 IN.	2.29	2.15	268	TAT20014	TATCNE SCALE INSTRUMENTS 5/8	7.50	6.75	368
STR20260	SCNICTRONICS #260 PLUG CADDIE	1.49	1.40	268	TAT20015	TATCNE SCALE INSTRUMENTS 11/16	8.50	7.65	368
STR20270	SCNICTR. #270 T PINS LARGE 100	1.98	1.90	268	TAT20016	TATCNE SCALE INSTRUMENTS 13/16	9.50	8.55	368
STR20271	SCNICTR. #271 T PINS SMALL 100	1.29	1.25	268	TAT20017	TATCNE #51 CHICKEN STICK	1.75	1.65	319
STR20272	SCNICTRCS #272 T PINS MED. 100	1.59	1.50	268	TAT20080	TATCNE #80 ENGINE TEST STAND	12.50	10.95	319
STR20281	SCNICTRONICS #281 72/75 FLAGS	.99	.95	268	TAT20096	TATCNE #96 BATTERY CHARGER	6.00	5.40	282
STR28245	SCNICTRONICS #245 GROMMETS SM.	.60	.55	268	TEC01050	TECHNCPWEE 5 CYLINDER RADIAL	695.00	695.00	248
STR28246	SCNICTRONICS #246 GROMMETS MED	.60	.55	268	TEC01070	TECHNCPWEE 7 CYLINDER RADIAL	895.00	895.00	248
STR31400	STR #400 CRAZY TAPE 1/4 X5C*	2.49	2.35	276	TEC01150	TECHNCPWEE ANOICIZED 5 CYL.	745.00	745.00	248
STR31410	STR #410 CRAZY TAPE 3/4**X5C*	5.95	5.45	276	TEC01170	TECHNCPWEE ANOICIZED 7 CYL.	945.00	945.00	248
STR54160	STR #160 SIDEWINDER HAND PUMP	10.95	8.95	334	TI131008	TITEBOND ALIPHATIC RESIN 8 OZ.	2.11	2.00	277
STR54249	STR54249 SCNICTRNCs #1250 12V FUEL PUMP	16.95	14.40	334	TI131016	TITEBOND ALIPHATIC RESIN 16 OZ	3.51	3.35	277
STR54250	SCNICTRONICS #250 FUEL PUMP	16.95	14.40	334	TCPI7311	T.F. PRGP SUPER-M 1 ONLY 6X3	1.10	1.05	358
STR54252	SCNICTRONICS #252 BIG SHOT BOZ	3.99	3.65	334	TC				








STOCK NO	DESCRIPTION	RETAIL PRICE	TOWER PRICE	PAGE #	STOCK NO	DESCRIPTION	RETAIL PRICE	TOWER PRICE	PAGE
WBR90160	MACHINE GUN 160 VICKERS	3.30	3.05	345	XAC37145	X-ACTC 734 COPING SAW BLADE 5	1.69	1.60	302
WBR90161	MACHINE GUN 161 LEWIS	2.64	2.50	345	XAC37361	X-ACTC 7361 NEECLE FILE SET	7.99	7.20	302
WBR90162	MACHINE GUN 162 SPANDAU	3.30	3.05	345	XAC37370	X-ACTC 7370 MINT WACU-VISE	4.99	4.60	302
WBR90163	MACHINE GUN 163 PARABELLUM	3.85	3.55	345	XAC37376	X-ACTC 7376 CORLESS DRILL SET	9.49	8.55	302
WBR90202	202 2" WRIGHT J-5 CYLINDER	1.70	1.60	345	XAC37378	X-ACTC 7378 SOLDERING IRON W/K	9.99	8.95	302
WBR90250	205 2" PEW WASP CYLINDER	1.70	1.60	345	XAC37380	X-ACTC 7380 PART PICKER	2.99	2.85	302
WBR90750	MACHINE GUN 750 VICKERS 1/4 SC	7.65	6.95	345	XAC37504	X-ACTC 7504 PLIERS-SIDE CUT	4.99	4.50	302
WBR90751	MACHINE GUN 751 SPANDAU 1/4 SC	7.65	6.95	345	XAC37505	X-ACTC 7505 PLIERS-DIAG CUT	4.99	4.50	302
WBR01140	WEBRA #1022RC .40 RC BLACKHEAD	118.00	77.95	249	XAC37509	X-ACTC 7509 PLIERS-LONG NOSE	4.99	4.50	302
WBR01161	WEBRA #1020RC .61 RC BLACKHEAD	126.00	82.95	249	XAC37655	X-ACTC 7535 RAZOR SAW SET	3.69	3.30	302
WBR01140	WEBRA #1034RC .40 RC FR SCHNRL	145.00	94.95	249	XAC37663	X-ACTC 7163 HVY DUTY FILE SET	8.59	7.75	302
WBR01161	WEBRA #1024RC .61 RC FR SCHNRL	203.00	132.95	249	XAC68010	X-ACTC 8010 AIR BRUSH	29.95	25.45	349
WBR01162	WEBRA #1030RC .61 RC RE SCHNRL	210.00	137.95	249	ZIN17131	ZINGER PROP 1 ONLY 7X4	1.20	1.15	358
WBR01191	WEBRA #1037RC .91 RC FR SCHNRL	248.00	159.95	249	ZIN17132	ZINGER PROP 1 ONLY 7X5	1.20	1.15	358
WBR06661	WEBRA #1026RCG .61 W/GEAR BOX	270.00	179.95	249	ZIN17133	ZINGER PROP 1 ONLY 7X6	1.20	1.15	358
WBR06691	WEBRA #1040RC .91 RC 4 CYCLE	410.00	264.95	249	ZIN17141	ZINGER PROP 1 ONLY 8X6	1.30	1.25	358
WBR09000	WEBRA #1100/7 TUNED PIPE-61SE	57.80	51.95	326	ZIN17142	ZINGER PROP 1 ONLY 8X5	1.30	1.25	358
WBR09006	WEBRA #1100/6G TUNED PIPE-1024RC	25.90	23.95	326	ZIN17143	ZINGER PROP 1 ONLY 8X6	1.30	1.25	358
WBR09017	WEBRA #1100/17 MUFFLER-PIPE-91	72.50	63.95	326	ZIN17151	ZINGER PROP 1 ONLY 9X4	1.30	1.25	358
WBR09061	WEBRA MARINE #1026WR .61 RV SCH	284.80	161.50	249	ZIN17152	ZINGER PRCP 1 ONLY 9X5	1.30	1.25	358
WBR09091	WEBRA MARINE #1039RCW .91 SCHL	213.60	177.95	249	ZIN17153	ZINGER PROP 1 ONLY 9X6	1.30	1.25	358
WST7C020	WESTCOAST DV-20 STING RAY	59.95	47.95	170	ZIN17155	ZINGER PROP 1 ONLY 9X7	1.30	1.25	358
WST70040	WESTCOAST DV-40X FORMULA VEE X	99.95	79.95	170	ZIN17161	ZINGER PROP 1 ONLY 10X4	1.40	1.35	358
WIN20211	WING 2 CONTROL RODS #211	4.50	4.15	270	ZIN17162	ZINGER PROP 1 ONLY 10X5	1.40	1.35	358
WIN20212	WING 4 ROD END CAPS #211A	2.60	1.90	270	ZIN17163	ZINGER PROP 1 ONLY 10X6	1.40	1.35	358
WIN20229	WING NI-CHROME WIRE #229 25 FT	4.95	4.50	301	ZIN17165	ZINGER PROP 1 ONLY 10X7	1.40	1.35	358
WIN20602	WING LOW PROFILE CANOPY #602	4.95	4.50	345	ZIN17173	ZINGER PROP 1 ONLY 11X6	1.60	1.55	358
WIN20604	WING STREAMLINE CANOPY #604	4.95	4.50	345	ZIN17175	ZINGER PROP 1 ONLY 11X7	1.60	1.55	358
WIN21212	WING INSTALLATION KIT #212	4.50	4.15	374	ZIN17176	ZINGER PROP 1 ONLY 11X7W	1.60	1.55	358
WIN73402	WING THE LOVE MACHINE	69.95	45.95	116	ZIN17177	ZINGER PROP 1 ONLY 11X7.5	1.60	1.55	358
WIN75002	WING FOAM WING LOVE MACHINE	13.45	12.35	374	ZIN17178	ZINGER PROP 1 ONLY 11X8	1.60	1.55	358
WIN75101	WING FOAM WING RCM TRAINER 6C	18.45	16.95	374	ZIN17181	ZINGER PRCP 1 ONLY 12X4	2.40	2.25	358
WIN75102	WING FOAM WING BASIC TRAINER	13.45	12.35	374	ZIN17182	ZINGER PROP 1 ONLY 12X5	2.40	2.25	358
WIN75103	WING FOAM WING QUICKIE 500	13.45	12.35	374	ZIN17183	ZINGER PRCP 1 ONLY 12X6	2.40	2.25	358
WIN75104	WING FOAM WING MAN TRAINER 4C	13.45	12.35	374	ZIN17191	ZINGER PROP 1 ONLY 14X4	3.90	3.60	358
WIN75105	WING FOAM WING RCM TRAINER 4C	13.45	12.35	374	ZIN17192	ZINGER PRCP 1 ONLY 14X5	3.90	3.60	358
WIN75201	WING FOAM WING LITTLE STICK	13.45	12.35	374	ZIN17193	ZINGER PRCP 1 ONLY 14X6	3.90	3.60	358
WIN75202	WING FOAM WING UGLY STICK	18.45	16.95	374	ZIN17232	ZINGER PROP 1 ONLY 16X5	8.90	7.95	358
WIN75203	WING FOAM WING SWEET STICK	13.45	12.35	374	ZIN17233	ZINGER PROP 1 ONLY 16X6	8.90	7.95	358
WIN75205	WING FOAM WING FLEDGLING	13.45	12.35	374	ZIN17238	ZINGER PRCP 1 ONLY 16X8	8.90	7.95	358
WIN75206	WING FOAM WING SR. FALCON	18.45	16.95	374	ZIN17239	ZINGER PROP 1 ONLY 16X10	8.90	7.95	358
WIN75207	WING FOAM WING FALCON 56	13.45	12.35	374	ZIN17242	ZINGER PROP 1 ONLY 18X5	12.90	10.95	358
WIN75208	WING FOAM WING SKYLARK	13.45	12.35	374	ZIN17243	ZINGER PRCP 1 ONLY 18X6	12.90	10.95	358
WIN75209	WING FOAM WING A-RAY	13.45	12.35	374	ZIN17248	ZINGER PRCP 1 ONLY 18X8	12.90	10.95	358
WIN75210	WING FOAM WING H-RAY	13.45	12.35	374	ZIN17249	ZINGER PRCP 1 ONLY 18X10	14.90	12.65	358
WIN75211	WING FOAM WING SUPER KAOS 40	13.45	12.35	374	ZIN17253	ZINGER PROP 1 ONLY 20X6	14.90	12.65	358
WIN75212	WING FOAM WING SKYLANE 62	19.45	17.90	374	ZIN17258	ZINGER PRCP 1 ONLY 20X8	14.90	12.65	358
WIN75214	WING FOAM WING CONTENDER 40	13.45	12.35	374	ZIN17259	ZINGER PRCP 1 ONLY 20X1C	14.90	12.65	358
WIN75215	WING FOAM WING CONTENDER	18.45	16.95	374	ZIN17263	ZINGER PROP 1 ONLY 22X6	16.90	14.35	358
WIN75216	WING FOAM WING GAZARIATOR	18.45	16.95	374	ZIN17268	ZINGER PROP 1 ONLY 22X8	16.90	14.35	358
WIN75217	WING FOAM WING HEADMASTER	13.45	12.35	374	ZIN17269	ZINGER PROP 1 ONLY 22X10	16.90	14.35	358
WIN75218	WING FOAM WING TRAINERMASTER	13.45	12.35	374	ZIN17273	ZINGER PRCP 1 ONLY 24X6	18.90	15.95	358
WIN75219	WING FOAM WING SIG KACET	13.45	12.35	374	ZIN17278	ZINGER PROP 1 ONLY 24X8	18.90	15.95	358
WIN75221	WING FOAM WING JR BOX FLY	13.45	12.35	374	ZIN17279	ZINGER PROP 1 ONLY 24X10	18.90	15.95	358
WIN75223	WING FOAM WING MEN TRAINER	16.45	14.95	374	ZIN17344	ZINGER PYLON PRCP A 8.5X6.5	2.05	1.95	358
WIN75224	WING FOAM WING BRIDI SUN FLI	13.45	12.35	374	ZIN17345	ZINGER PYLON PRCP B 8.5X7	2.05	1.95	358
WIN75301	WING FOAM WING KAOS	18.45	16.95	374	ZIN17631	ZINGER PROPS- 6 EACH - 7X4	7.20	6.15	358
WIN75303	WING FOAM WING KACH-1	18.45	16.95	374	ZIN17632	ZINGER PROPS- 6 EACH - 7X5	7.20	6.15	358
WIN75304	WING FOAM WING KNIK FLY-TAPERD	18.45	16.95	374	ZIN17633	ZINGER PROPS- 6 EACH - 7X6	7.20	6.15	358
WIN75305	WING FOAM WING SUPER KAOS 60	18.45	16.95	374	ZIN17641	ZINGER PROPS- 6 EACH - 8X4	7.80	6.65	358
WIN75306	WING FOAM WING STRIKEMASTER	18.45	16.95	374	ZIN17642	ZINGER PROPS- 6 EACH - 8X5	7.80	6.65	358
WIN75307	WING FOAM WING SPORTMASTER	18.45	16.95	374	ZIN17643	ZINGER PROPS- 6 EACH - 8X6	7.80	6.65	358
WIN75309	WING FOAM WING PHOENIX-6	18.45	16.95	374	ZIN17651	ZINGER PROPS- 6 EACH - 9X4	7.80	6.65	358
WIN75311	WING FOAM WING DIRTY BIRDY	18.45	16.95	374	ZIN17652	ZINGER PROPS- 6 EACH - 9X5	7.80	6.65	358
WIN75314	WING FOAM WING SIG KOUGAR	17.45	15.95	374	ZIN17653	ZINGER PROPS- 6 EACH - 9X6	7.80	6.65	358
WIN75501	WING FOAM WING T. F. P-40	18.45	16.95	374	ZIN17655	ZINGER PROPS- 6 EACH - 9X7	7.80	6.65	358
WIN75502	WING FOAM WING T. F. P-39	18.45	16.95	374	ZIN17661	ZINGER PROPS- 6 EACH - 10X4	8.40	7.15	358
WIN75503	WING FOAM WING T. F. P-51	19.45	17.90	374	ZIN17662	ZINGER PROPS- 6 EACH - 10X5	8.40	7.15	358
WIN75504	WING FOAM WING PLATT T-28 B	21.45	19.75	374	ZIN17663	ZINGER PROPS- 6 EACH - 10X6	8.40	7.15	358
WIN75505	WING FOAM WING PLATT FW-19C	21.45	19.75	374	ZIN17665	ZINGER PROPS- 6 EACH - 10X7	8.40	7.15	358
WIN75701	WING FOAM WING AEROMASTER	21.45	19.75	374	ZIN17673	ZINGER PROPS- 6 EACH - 11X6	9.60	8.15	358
WIN75703	WING FOAM WING SMITH MINIPLANE	21.45	19.75	374	ZIN17675	ZINGER PROPS- 6 EACH - 11X7	9.60	8.15	358
WLH31008	WLHCLD ALIPHATIC RESIN 8 OZ.	2.10	2.00	277	ZIN17676	ZINGER PROPS- 6 EACH - 11X7W	9.60	8.15	358
WLH31017	WLHCLD ALIPHATIC RESIN 17 OZ.	3.75	3.45	277	ZIN17677	ZINGER PROPS- 6 EACH - 11X7.5	9.60	8.15	358
WLH31054	WLHCLD SPRAY ADHESIVE 12 OZ.	4.20	3.85	277	ZIN17678	ZINGER PROPS- 6 EACH - 11X8	9.60	8.15	358
WLH31056	WLHCLD R/C-56 ADHESIVE 4 OZ.	1.50	1.45	277					
XAC36051	X-ACTC 5011 KNIFE SET	1.89	1.80	302					
XAC36053	X-ACTC 7530 RAZOR SAW SET	4.29	3.95	302					
XAC36062	X-ACTC 5062 DOUBLE KNIFE SET	4.39	3.95	302					
XAC36070	X-ACTC 7070 SCREWDRIVER SET	3.79	3.40	302					
XAC36082	X-ACTC 5082 KNIFE CHEST	7.99	7.20	303					
XAC36083	X-ACTC 5083 DELUXE KNIFE CHEST	9.29	8.35	303					
XAC36084	X-ACTC 5284 KNIFE & TOOL SET	18.95	15.65	303					
XAC36086	X-ACTC 5086 KNIFE & TOOL CHEST	22.95	18.95	303					
XAC36087	X-ACTC 5087 KNIFE & TOOL CHEST	34.95	25.95	303					
XAC36088	X-ACTC 5088 COMPLETE K&T CABNET	59.95	44.95	303					
XAC36089	X-ACTC 5089 CLX K&T CABINET	74.95	55.95	303					
XAC36099	X-ACTC 5099 SUPER TOOL CABINET	59.00	66.95	303					
XAC36351	X-ACTC 7351 CONTOURED SANDERS	5.99	5.50	302					
XAC36351	X-ACTC 7531 RAZOR SAW & KNIFE	7.79	7.00	302					
XAC36352	X-ACTC 7532 MITRE BOX SET	6.49	5.85	302					
XAC36353	X-ACTC 7533 MITRE BOX-ONLY	3.29	3.00	302					
XAC37001	X-ACTC 3201 KNIFE #1	.99	.95	303					
XAC37002	X-ACTC 3202 KNIFE #2	1.60	1.60	303					
XAC37006	X-ACTC 3206 KNIFE #6	2.89	2.75	303					
XAC37008	X-ACTC 11 BLADE 5	.89	.85	303					
XAC37010	X-ACTC 10 BLADE 5	1.29	1.25	303					
XAC37011	X-ACTC 11 BLADE 5	.79	.75	303					
XAC37015	X-ACTC 215 BLADE 3	2.29	2.20	303					
XAC37022	X-ACTC 22 BLADE 5	1.29	1.15	303					
XAC37024	X-ACTC 24 BLADE 5	.89	.85	303					
XAC37026	X-ACTC 226 BLADE 3	1.99	1.90	303					
XAC37034	X-ACTC 234 SAW BLADE 3/4 DEEP	1.39	1.25	302					
XAC37035	X-ACTC 235 SAW BLADE 1 IN DEEP	1.39	1.25	302					
XAC37040	X-ACTC 7040 BLOCK PLANNER	2.69	2.55	302					
XAC37041	X-ACTC 7041 1 IN. SANDER	1.49	1.40	302					
XAC37042	X-ACTC 7042 2 IN. SANDER	1.59	1.50	302					
XAC37044	X-ACTC 7044 COPING SAW	4.99	4.60	302					
XAC37045	X-ACTC 7045 SPOKESHAVE	1.79	1.70	302					
XAC37046	X-ACTC 7446 'C' CLAMP SET	6.99	6.30	302					
XAC37047	X-ACTC 7047 HAND DRILL	6.99	6.30	302					
XAC37048	X-ACTC 7048 BALSA STRIPPER	2.69	2.55	302					
XAC37050	X-ACTC 7050 HAMMER SET	5.99	5.40	302					
XAC37135	X-ACTC 236 SAW BLADE 1-1/4 IN.	1.79	1.60	302					
XAC37139	X-ACTC 239 SAW BLADE, X-FINE	1.99	1.90	302					
XAC37144	X-ACTC 735 SPIRAL SAW BLADE 3	1.19	1.15	302					





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# HOW TO ORDER INSTRUCTIONS

## HOW TO PLACE AN ORDER WITH TOWER HOBBIES

ORDER FORMS ARE ON PAGES 397 and 399

1. Fill in the date of your order.
2. Fill in your name exactly as you want it to appear on shipping and mailing labels and invoices. All members of one household should use the same name to help speed your order. Please do not use your business name here.
3. If your package is being shipped somewhere other than your home, please fill in the name of that place.
4. Next, fill in your street and number (or P.O. Box number), city, state, zip code, telephone area code, and number.
5. Please indicate how you would like your package shipped. Unless otherwise indicated, we will automatically ship U.P.S. (United Parcel Service). However, if you use a Post Office Box number, we will ship via Parcel Post. Include a street address if U.P.S. is preferred.
6. Please indicate whether or not you are a first time Tower customer. If you have ordered from us before, please fill in the approximate date of your last order.
7. Your customer number can be found on the upper left hand corner of the invoices, and the upper right hand portion of the mailing labels.
8. If you have moved since your last order with Tower, please give us your old address so we can correct our records. Or, complete this section if you want your mailing address (where catalogs, special sheets, etc., will be mailed) different from the shipping address given in no. 3 and no. 4 above.
9. The quantity of each item you wish to order.
10. This section was designed for Tower's regular catalog identification numbers which consist of a 3-letter prefix followed by an identifying 5-digit number. If you are ordering with a special stock number (i.e. from a magazine ad) simply leave the remainder of the boxes blank.
11. Please fill in the COMPLETE merchandise description for each item.
12. If Tower is out of an item, and you DO NOT want it to be placed on backorder, mark this column with an "X".
13. Fill in the advertised price for each item that you order. All prices are subject to change if the manufacturers' retail price changes during the sale period. If the price has gone up significantly, Tower will notify you prior to shipment to be sure that you still want the item.
14. The "Total Amount" is derived by multiplying the "price each" by the quantity.
15. Add the total amounts for each item to get the "Sub-Total".
16. Illinois residents (only) add 5% of the sub total.
17. To cover postage, full insurance and handling charges, add \$3.00.
18. Domestic customers add \$15.00 to your order if Air Mail or air U.P.S. (Blue Label) service is requested. Foreign customers add \$15.00 to your order to cover additional ground shipping charges; add 20% to your order if Air Mail service is requested (if requested, excess will be refunded with order).
19. If you are requesting your order to be shipped C.O.D. rather than prepaid, add \$3.00
20. The "Grand Total" of your order is the sum of 15, 16, 17, 18, and 19. If you are sending payment with this order, then please send a check, bank check, or money order payable to "Tower Hobbies" for the "Grand Total" amount (please do not send cash). Personal checks may be delayed for check clearance. THANK YOU FOR YOUR ORDER!
21. Cut this order form out on the dotted line and put it in an envelope along with your payment (if your order is prepaid instead of C.O.D.). Mail it to: Tower Hobbies, P.O. Box 778, Champaign, Illinois 61820.

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ALASKA AND HAWAII 800-637-8700 ILLINOIS 800-252-1113

**1** Date \_\_\_\_\_  
**Ship To:** (Please Print Clearly)  
**2** Name \_\_\_\_\_  
**3** In Care Of \_\_\_\_\_  
**4** Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
Area Code \_\_\_\_\_ Phone Number \_\_\_\_\_

**5** Ship VIA: ☐ Regular U.P.S. (United Parcel Service) ☐ Regular Parcel Post  
☐ Air U.P.S. ☐ Air Parcel Post ☐ Other \_\_\_\_\_

**6** Have you ordered from Tower before? Yes ☐ No ☐  
**7** If so, last order date (approx.)? \_\_\_\_\_  
**8** CUSTOMER NUMBER \_\_\_\_\_

Address Below Is: (If different from shipping address)  
☐ Old Address ☐ Mailing Address  
In Care Of \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
Area Code \_\_\_\_\_ Phone Number \_\_\_\_\_

9 QUANTITY	10 TOWER STOCK NUMBER	11 MERCHANDISE DESCRIPTION	12 X	13 PRICE EACH	14 TOTAL AMOUNT
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14	If you need more lines to order merchandise please use the back of this form and carefully follow the instructions on the back.				

PLEASE DO NOT WRITE IN  
THE SPACES BELOW


Complete Ordering Instructions  
Are on Page 396

Large personal checks will be held 30 days for  
clearance. Please send a money order or a certified  
check for large orders.

THANK YOU FOR YOUR ORDER!

15	SUB-TOTAL
16	ILL. RESIDENTS ADD 5% SALES TAX
17	POSTAGE, FULL INSURANCE AND HANDLING
18	SPECIAL POSTAGE
19	C.O.D.'s ADD \$3.00
20	GRAND TOTAL



**IF YOU USE THIS SPACE TO ORDER MERCHANDISE:**

- [illegible]



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**1** Date \_\_\_\_\_  
**Ship To:** (Please Print Clearly)  
**2** Name \_\_\_\_\_  
**3** In Care Of \_\_\_\_\_  
**4** Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
Area Code \_\_\_\_\_ Phone Number \_\_\_\_\_  
**5** Ship VIA: ☐ Regular U.P.S. (United Parcel Service) ☐ Regular Parcel Post  
☐ Air U.P.S. ☐ Air Parcel Post ☐ Other \_\_\_\_\_  
**6** Have you ordered from Tower before? Yes ☐ No ☐  
If so, last order date (approx.): \_\_\_\_\_

**7** CUSTOMER NUMBER \_\_\_\_\_  
**8** Address Below Is: (If different from shipping address)  
☐ Old Address ☐ Mailing Address  
In Care Of \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
Area Code \_\_\_\_\_ Phone Number \_\_\_\_\_

9	QUANTITY	10	TOWER STOCK NUMBER	11	MERCHANDISE DESCRIPTION	12	X	13	PRICE EACH	14	TOTAL AMOUNT
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											

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16	ILL. RESIDENTS ADD 5% SALES TAX
17	POSTAGE, FULL INSURANCE AND HANDLING \$3.00
18	SPECIAL POSTAGE
19	C.O.D.'s ADD \$3.00
20	GRAND TOTAL



**IF YOU USE THIS SPACE TO ORDER MERCHANDISE:**

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317-877-2223

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617-823-1726

**American R/C Helicopters**  
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San Marcos, CA 92069  
714-744-7533

**Andrews Aircraft Models**  
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617-887-8541

**Applied Design Corp. (ADC)**  
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El Segundo, CA 90245  
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**Associated Electrics, Inc.**  
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Santa Ana, CA 92705  
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Venice, CA 90291  
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Ballard, WV 24918

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Franklin Park, IL 60131  
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**Banner**  
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Burbank, CA 91502  
213-845-4212

**Bearcat**  
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Cumberland, IN 46229  
317-894-1230

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Lawrenceville, GA 30245  
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Cincinnati, OH 45236  
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402-330-3222

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714-557-1451

**W. S. Deans**  
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Downey, CA 90242  
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**Devcon**  
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617-777-1100

**Dodgson Designs**  
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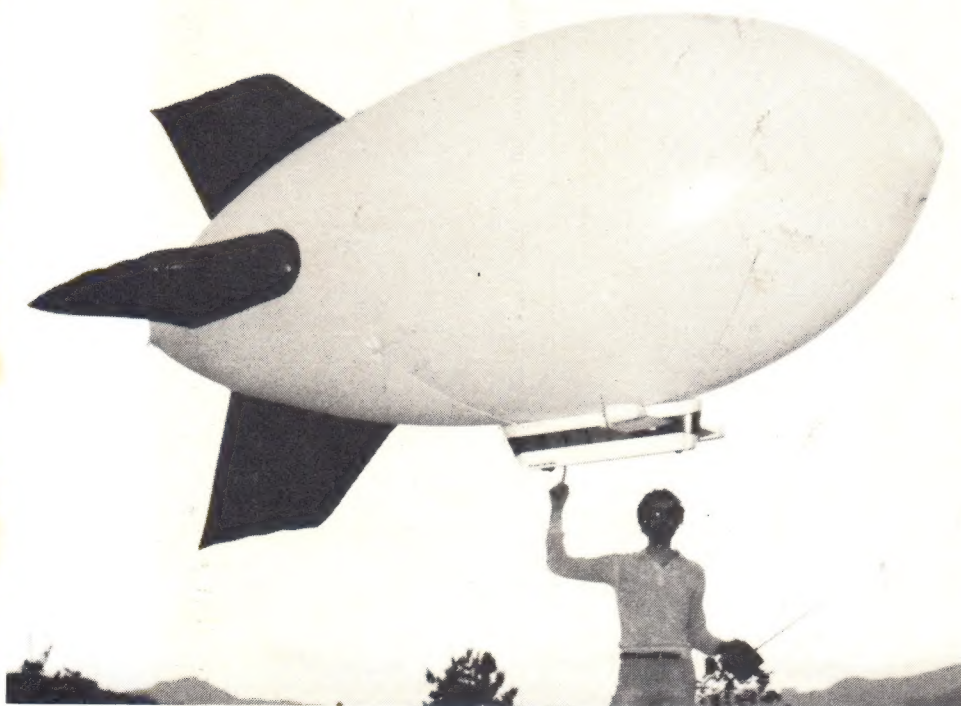
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